

# MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

VOL. XLVI. No. 3.  
WEEKLY.

BALTIMORE, AUGUST 4, 1904.

\$4.00 A YEAR.  
SINGLE COPIES, 10 CENTS.

## Manufacturers' Record.

PUBLISHED EVERY THURSDAY BY THE  
MANUFACTURERS' RECORD PUBLISHING CO.

RICHARD H. EDMONDS, President.  
THOMAS P. GRASTY, Vice-President.  
FRANK GOULD, Secretary.  
VICTOR H. POWER, Treasurer.

OFFICE: MANUFACTURERS' RECORD BUILDING,  
BALTIMORE.

RICHARD H. EDMONDS,  
Editor and General Manager.

THOMAS P. GRASTY,  
General Staff Correspondent.

SUBSCRIPTION, . . . \$4 a Year.  
TO FOREIGN COUNTRIES, . . . 25c. 6d. a Year.

BALTIMORE, AUGUST 4, 1904.

### THE ST. LOUIS EXPOSITION.

The Manufacturers' Record is represented at the exposition by Mr. Albert Phenix, its Southwestern representative, with office in the Missouri Trust Building.

Frank V. Emory, manager of the Welsbach Company, 1421 North Charles street, Baltimore, Md., in renewing subscription to the Manufacturers' Record for another year, writes:

I take pleasure in assuring you this paper has been of great assistance to us in securing business within the burnt district. It has kept us at all times well advised of the movements of prospective customers, and the details of this information have been remarkably accurate. We are pleased to recommend it as the best medium for information concerning new Baltimore.

### FORT SMITH'S PREDICAMENT.

Mr. E. B. Miller, secretary of the Commercial Club of Fort Smith, Ark., writes to the Manufacturers' Record as follows:

Fort Smith in two years gave \$175,000 to railroads and factories and has invested more than \$400,000 of its own money in enterprises that we have brought here. We have in 18 months located 11 new enterprises that are working 600 new operatives. This has stimulated increase in the old plants and has led Fort Smith to increase its population fully 5000. There are before this club some 50 good propositions that we are unable to absorb, and I am now visiting surrounding towns to try to prevail upon them to take in some of these propositions. The more our surrounding towns grow the more we will grow. I believe that the Manufacturers' Record during the past 15 years has been the greatest factor in developing the South's present prosperity.

It is an interesting commentary upon Southern advancement to say that a city of the character and location of Fort Smith should not be in a position to handle industrial and business propositions before it. That Fort Smith has done well in recent months is evidenced by the statements of Mr. Miller. That it is full of the right spirit is shown by the efforts of its Commercial Club to encourage nearby communities to avail themselves of offers that it is unable to handle. How many other cities of the South are similarly situated? How

many have organizations doing as effective work for them as Fort Smith's Commercial Club is doing for it?

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 70 and 71.

### WHAT HAS THE MAYOR AGAINST BALTIMORE?

In the local columns of the Baltimore Herald of August 2 appeared the following:

Among local architects there is indignation because the list of competitors for the plans of the proposed new Eastern High School, to be erected at Broadway and North avenue, contains the names of several out-of-town designers. The indignant ones assert that only local men should be allowed to compete, and it is likely that they will enter a protest.

The attention of Mayor Timanus and Building Inspector Preston was called to the matter yesterday. Today they will discuss it, and the indications are that the names of two or three of the competitors will be stricken off the list unless they are found to be bona-fide residents of the city.

"My wish is that only local men be allowed to compete," said the mayor. "They must be registered voters of this city or off the list they go."

The building inspector said that he was not sure whether it was the intent of the council ordinance to permit the entry of plans of those who have a residence here only, or by both residents and those who have established a business in this city. Three of the competitors, he believes, are out-of-town residents.

The claim has been made that outsiders cannot be barred out if it is proved that they have established headquarters here and intend to remain permanently. The local men are of the opinion that most of those who came here after the fire will remain only while the "cream" lasts. No objection will be made to those who had an office here antedating the fire.

The Builders' Exchange, through Secretary Hering, in a communication to the school board, asked that only local architects be allowed to compete.

The Manufacturers' Record can scarcely conceive that business men of ordinary judgment could be guilty of such a narrow, short-sighted policy as is outlined in this report. Much less can it understand how the mayor of any important city, or, for that matter, of any "backwoods" town, could take such a position as Mayor Timanus is credited with. Is it proposed that Baltimore shall shut itself up within a worse than Chinese wall, with a narrowness which would justly doom it to become the home of bats and owls? Is it proposed that the people of this city shall announce to the world that it wants no outside business; that its architects and its Builders' Exchange, and even its chief executive, prefer to live in and on each other; that, afraid of outside competition, and with souls and minds so small that they could dance on the point of a cambric needle or be lost in the rattle of a mustard seed, we shall say to the world that Baltimore wants no outside competitors in business, and in saying this necessarily say that it wants no trade from outside? For it is a poor rule that will not work both ways. The

Manufacturers' Record is aware of the fact that a number of narrow-minded people took this position just after the fire and put up the cry of "Baltimore for Baltimoreans," but it had believed, despite reports to the contrary, that the men suffering from such narrowness had been converted to a broader and more liberal policy. In vain shall we seek to build a great city here if such a sentiment as is indicated in this report is to prevail; for then in vain shall we invite capital, brains and brawn from elsewhere. How can any business man in Baltimore ask the business people of the country to buy of Baltimore, to deal with Baltimore banks or merchants or manufacturers if such a sentiment as Mayor Timanus has announced is to be the dominant note of this city. So long as such a sentiment was confined to a few inconsequential people it did not endanger our future, but when voiced as the expression of the mayor of the city, and thus given an official endorsement, it is a blow against the future of Baltimore, against which the real business people of this city should protest, and protest with all their energy. Can any man conceive of Atlanta or Galveston or New Orleans or any other city of the South saying to the world that we want no competition; we propose to keep our business to ourselves, and the outsider is not desired. And if these cities of the South are broad enough, as, of course, they are, to spurn with contempt such a spirit, how much less can we imagine the great centers of trade and industry and finance, such as New York, Boston, Chicago and St. Louis, even permitting such a thought to find expression. The very life of a community must depend upon drawing to itself new forces of energy, whether that energy be in money, in brains, in skill, or simply in labor.

Great as was the destruction by the fire and the loss of property therefrom, that loss was not one-tenth so great as will be the future loss in trade and influence if such a spirit is permitted to exist. Are the merchants and manufacturers of this city, who in strong competition are fighting for the trade of the South and the West, content to sit down supinely and permit their competitors to go out before the world and say that Baltimore wants no competition, wants no outside trade, and that the mayor of the city, following the lead of a few narrow-minded people, announces that "Baltimore is for Baltimoreans alone?" The Manufacturers' Record has heard from many sources throughout the country that this spirit has already cost this city a vast amount of trade. Its revival in this shape, unless promptly suppressed, will doom Baltimore to a loss of trade which in the next few years will vastly exceed the aggregate loss which we suffered through the destruction of February 7.

### IS THERE NOT WASTE HERE?

Mr. Jacob G. Schonfarber, "Assistant Chief of the Maryland State Bureau of Industrial Statistics," is reported as

stating that one of the great reasons why capital and labor get along so well in Baltimore is that in Baltimore and Maryland labor is more conservative in dealing with employers than in any other city of its size, and that cordial relations generally exist between the two. How long are such relations to continue if the State pays "an Assistant Chief of the Maryland State Bureau of Industrial Statistics" who suggests that carpenters are at present underpaid, and that labor's earnings will not go hereafter as far as they have gone in the past? Again the Manufacturers' Record asks: Is not the money spent upon salaries in the Bureau of Industrial Statistics worse than wasted?

### DAMAGE-SUIT INDUSTRY.

From time to time the Manufacturers' Record has commented upon the ills wrought upon the State by the damage-suit industry, of which the railroads have been the unwilling capitalists. Attacking the industry upon principle, it has cited instances of railroads postponing improvements and extensions because of the menace in the industry. The extent of the ills is illustrated by figures which the Austin Statesman has derived from the records of the Texas railroad commission. These show that the amount of money paid by Texas railroads on account of real and alleged personal injuries has increased from \$223,749 in 1891 to \$1,940,551 in 1903. The Statesman points out the well-known fact that the railway mileage of the State has increased in the meantime and the service has been better, but it correctly argues that \$2,000,000 a year would build many miles of new line and would go far toward betterment, and that the menace of the damage-suit industry has undoubtedly checked the inclination of railway managements to give the State greater facilities.

That argument ought to be a corrective of the practice, which injures not only Texas, but other States. It should lead to the cultivation of a public sentiment that will suppress the cause of the industry, the shyster lawyer.

### AMERICAN FEDERATION OF LABOR IN POLITICS.

From time to time, especially at its convention in New Orleans in 1902 and at Boston in 1903, President Gompers and other moving spirits of the American Federation of Labor have endeavored to convince its conservative membership and the great majority of American citizens having no representation therein that the body is not concerned with politics. Great ado has been made over votes in the Federation conventions against radical propositions of straw, advanced for the purpose of being voted down, but other acts of the conventions have clearly indicated that the leaders of the Federation at least are very much in politics. They have systematically lobbied in Congress and in the conventions of leading political par-

ties of the country, and the climax of their would-be political activity has been reached in the formulation of certain questions which, according to a dispatch from Washington, President Gompers has arranged to submit to candidates for Congress. The questions are:

"Will you vote against government by injunction by voting for our bill on that subject?"

"Will you vote for our eight-hour bill?"

"Will you vote for the people's sovereignty by voting to establish in the people a right to a direct vote on public questions?"

Every one of these questions is revolutionary. The first would abolish one of the greatest safeguards of the individual against the mob. The second would deprive by federal power the individual of his unlimited right to work. The third would substitute for the constitutional checks and balances in legislation lawmaking by the mob.

The Washington dispatch says that the general officers of the American Federation will urge on all the local bodies throughout the country co-operation on this line, with a view to gaining strength in Congress, and that the name of the candidate who is not willing to make answers to the questions will be given the widest publicity that the Federation can secure in his district.

This confession of active participation as an organization in politics on the part of the American Federation of Labor simplifies the situation. It renders easy the solution of a problem which has given patriotic America some concern. The Federation includes in its membership less than one-tenth of the voters of the country. It is hoped that nothing may be done to prevent the widest publicity being given to the names of candidates for Congress who shall answer Mr. Gompers' questions affirmatively. They are the kind of candidates whom the voters of the country should keep at home.

#### THE SOUTH'S COAL OUTPUT.

The forthcoming report on the country's coal production, made by Mr. Edward Wheeler Parker, statistician of the United States Geological Survey, shows that 359,421,311 short tons of coal were mined in this country in 1903, an increase of 57,830,872 short tons, or 19 per cent., over the production of 1902. Of the total production, 74,313,919 tons were of Pennsylvania anthracite, an increase of 33,940,324 tons, or 44.3 per cent. The total production in 1903 and the tonnage increase over 1902 are shown by States in the following table:

| State.                    | Total product. | Tonnage increase. |
|---------------------------|----------------|-------------------|
| Alabama.....              | 11,832,124     | 1,477,554         |
| Arkansas.....             | 2,293,583      | 349,661           |
| California and Alaska.... | 105,620        | 18,424            |
| Colorado.....             | 7,639,268      | 132,075           |
| Georgia and N. Carolina.. | 434,260        | 12,823            |
| Idaho.....                | 4,250          | 2,220             |
| Illinois.....             | 37,206,667     | 4,267,294         |
| Indiana.....              | 10,905,842     | 1,458,419         |
| Indian Territory.....     | 3,517,388      | 686,722           |
| Iowa.....                 | 6,852,686      | 947,920           |
| Kansas.....               | 5,867,208      | 601,143           |
| Kentucky.....             | 7,431,016      | 664,032           |
| Maryland.....             | 4,783,083      | 148,516           |
| Michigan.....             | 1,410,909      | 446,191           |
| Missouri.....             | 4,303,332      | 413,178           |
| Montana.....              | 1,506,576      | 165,247           |
| New Mexico.....           | 1,543,496      | 494,703           |
| North Dakota.....         | 391,106        | 74,594            |
| Ohio.....                 | 25,004,893     | 1,484,999         |
| Oregon.....               | 91,144         | 25,496            |
| Pennsylvania.....         | 103,271,057    | 4,696,690         |
| Tennessee.....            | 4,797,346      | 414,378           |
| Texas.....                | 926,789        | 24,847            |
| Utah.....                 | 1,681,409      | 106,883           |
| Virginia.....             | 3,511,307      | 328,314           |
| Washington.....           | 2,196,273      | 515,063           |
| West Virginia.....        | 30,250,408     | 5,679,582         |
| Wyoming.....              | 4,709,393      | 279,992           |
| Total bituminous.....     | 285,107,392    | 24,890,548        |
| Pennsylvania anthracite.. | 74,313,919     | 33,940,324        |
| Grand total.....          | 359,421,311    | 57,830,872        |

The production of bituminous coal was 285,107,392 short tons, an increase

of 24,890,548 tons, or 8.7 per cent. There was an increase in this output in 26 States and Territories, and a decrease in Maryland, Georgia, Colorado and Montana. Of the bituminous output, Pennsylvania led with 103,271,057 tons; Illinois second, with 37,206,667 tons; West Virginia third, with 30,250,408 tons; Ohio fourth, 25,004,893 tons; Alabama fifth, 11,832,124 tons, and Indiana sixth, with 10,905,842 tons. The greatest increase in output over 1902 was in West Virginia, 5,679,582 tons, with Pennsylvania second, 4,696,690 tons; Illinois third, 4,267,294 tons; Ohio fourth, 1,484,999 tons; Alabama fifth, 1,477,554 tons, and Indiana sixth, 1,458,419 tons.

The output and increase in tonnage in the South by States was as follows:

| State.                    | Total product. | Tonnage increase. |
|---------------------------|----------------|-------------------|
| West Virginia.....        | 30,250,408     | 5,679,582         |
| Alabama.....              | 11,832,124     | 1,477,554         |
| Kentucky.....             | 7,431,016      | 664,032           |
| Tennessee.....            | 4,797,346      | 414,378           |
| Maryland.....             | 4,783,083      | 148,516           |
| Virginia.....             | 3,511,307      | 328,314           |
| Arkansas.....             | 2,293,583      | 349,661           |
| Texas.....                | 926,789        | 24,847            |
| Georgia and N. Carolina.. | 434,260        | 12,823            |
| Total.....                | 66,259,896     | 8,447,029         |

Decrease.

The total output in the South was 66,259,896 short tons, an increase of 8,447,029 tons, or 12.7 per cent., against a percentage of 8.7 for the whole country. The South's output in 1902 was 22.2 per cent. of the total of bituminous coal for the whole country, and in 1903 it was 23.2 per cent. of the total, while its increase from 1902 to 1903 was 33.9 per cent. of the total increase.

#### THE PEABODY EDUCATION FUND

Honorable Hoke Smith of Atlanta, Ga., seems to be the spokesman for the movement that may postpone indefinitely the closing up of the Peabody Fund trusteeship. There is apprehension that such postponement may tend to prolong Ogdensism in the South. In creating his Fund in 1867 George Peabody contemplated the possibility of the Trust being closed at the end of 30 years and its principal being distributed for the benefit of Southern education. Administration of the Trust early took the form of aid through the income of the Fund to normal schools, notably the Peabody Normal at Nashville and Winthrop College, S. C. Plans for closing the Trust were broached seven or eight years ago, but for one reason or another have not been brought to a head. The latest discussion to that end has been under way for two or three years, and now the matter is in the hands of a committee of the trustees, including Honorable Hoke Smith. The discussion turns upon three propositions principally—one that the Fund, amounting to between \$2,000,000 and \$3,000,000, be used for the endowment of a great central college for teachers in the South, preferably the Peabody Normal at Nashville, because of the work that it has already accomplished and because of its prestige; one that the Fund be distributed among the various normal schools which have for several years been receiving part of the income, and one which Honorable Hoke Smith seems to be doing his best to further, that part of the Fund be employed for the improvement of rural schools in the South.

Without going into the merits of the administration of the Peabody Fund or of the first two propositions, it must be said that the last appears undesirable, in that it runs the risk of falling in with Ogdensism's talk of working in harmony with the Peabody and Slater Trusts and with its ambition to become "the clearing-house for educational philanthropy"

in the South, which implies the handling or direction of all money designed for aid to Southern schools, which ambition should be resisted strenuously by everybody interested in American education, and of bracing up the campaign for what the New York Tribune, Governor Montague of Virginia and other adherents of Ogdensism call "the democratization of education."

Improvement of rural schools in the South had better be left hereafter to the people who are most directly concerned in that improvement, and the less Ogdensism is permitted to do with them the better for American education.

Moreover, students of the situation who have followed Ogdensism along its devious ramifications cannot escape the conviction that this plan of extending Peabody aid to the rural schools involves the unnecessary prolongation of the Peabody Trust, with the equally unnecessary appointment of some representative of Ogdensism as agent, the salary once paid being \$5000 a year, with \$1000 for incidental expenses. Nearly twenty years ago an agent of the Peabody Trustees wrote regarding his withdrawal that "the policy of your board is so well established and the method of administration has become so simplified that my withdrawal will put you to no inconvenience." Referring to the services of Dr. Green as agent pro tem., Robert C. Winthrop said in 1888 that these services had been labors of love, "thus saving no considerable amount of our restricted income for appropriations to the Southern schools." If the Peabody Trustees have the same inspiration as Robert C. Winthrop they will surely not countenance at this late day any plan looking to the payment for a general agency of \$5000 or \$6000 a year, an amount sufficient to train to be teachers ten or twelve young women a year.

#### RAILROAD INCORPORATIONS IN JULY.

According to reports received by the Manufacturers' Record, there were only 11 railroads incorporated in the South during July, while two others were organized and two more amended their charters for additional construction. This makes a total of 120 new companies reported since January 1, and a total projected mileage of 11,365. There were also reported during the month a number of extensions projected by different companies with lines already in operation, but no account is taken of these in this estimate.

Alabama reports one road chartered to build 30 miles of line; Arkansas reports two chartered and two charter amendments, for a total of 306 miles; Kentucky shows one road, with only 10½ miles; Maryland another, with 20 miles, and Mississippi a third, to build 34 miles; Missouri exhibits three roads, to build altogether 125 miles of line, but in Oklahoma one large project is reported for 250 miles, and in Texas another, with 540 miles; Virginia also shows one road, to build 39 miles, and West Virginia one, to construct eight miles. This comprises everything for the month (altogether 1362½ miles of line), no new incorporations being reported from either Florida, Georgia, Indian Territory, Louisiana, North Carolina, South Carolina or Tennessee.

The most extensive project developed during the month is that of the Oklahoma, Texas & New Mexico Railroad, organized at Dalhart, Texas, to build about 540 miles of line from Woodward, O. T., to El Paso, Texas, such a line, it is said, being desirable for the Rock

Island-Frisco system and the Santa Fe. The next largest plan is that of the Kansas City, Tulsa and Southwestern Railroad, chartered in Oklahoma to build from a point on the Missouri Pacific system, in the Indian Territory, and to run via Tulsa across Oklahoma to Wichita Falls, Texas. The Rock Island system has amended the charter of the Little Rock & Southern Railroad, in Arkansas, to provide for about 180 miles of new construction, the line proposed being from Hot Springs Junction via Benton and Traskwood to Crossett in Ashley county, and thence to a point on the southern boundary of Arkansas, a distance of about 120 miles. A branch of about 30 miles is proposed from a point in Calhoun county to Eldorado, and another from the main line to Princeton and Malvern, also about 30 miles, this making the total in view. Several other projects in Arkansas are those of the newly-incorporated Arkansas Anthracite Railway (to build from Fort Smith to Clarksville with a short branch, making a total of 66 miles) and the Mena & Black Springs Railway, which has amended its charter to construct 50 additional miles of line, and the Little Bay & Hampton Railway, which is to be 10 miles long.

Alabama reports the Oak Grove & Georgetown Railroad, to build from Oak Grove via Georgetown to Leakesville, Miss., 30 miles. Kentucky displays the Eminence & New Castle Electric Railroad, to build between the points named and to continue to the Kentucky river, altogether 10½ miles. Maryland has the Wicomico Electric Power Co., organized to build a 20-mile line from Salisbury to Bivalve. Mississippi is represented by the Fort Adams, Woodville & Centerville Electric Railroad, with 34 miles in prospect. Missouri shows three companies, the Adair County Railroad, from Youngstown to coal mines, 5 miles; the St. Joseph Interurban Railway, from St. Joseph to Stansberry, 40 miles, and the St. Joseph, Albany & Des Moines Railroad, from St. Joseph to Des Moines, Iowa, 80 miles. Virginia has the organization of a company to build from Appomattox Station via Charlotte Courthouse to Drake's Branch, 39 miles, and West Virginia completes the list with the proposed line of about eight miles for the Penusboro & Harrisville Traction Co.

Most of the new railroads incorporated since the first of the year were in March and May, but the number reported for July is about the average of the other four months. Not only are there many new railroad incorporations in the South, but recently several projects conceived and organized some time ago have been taken up with a view to beginning construction within a few months to meet demands for railroad accommodation, and it appears probable that much new work will be started by October 1 at the latest in several Southern States.

#### "INDISPENSABLE AID TO BUSINESS."

Rinn & Davis, manufacturers' agents, Baltimore, Md., in a letter to the Daily Bulletin of the Manufacturers' Record write:

We take this opportunity of saying that we have found the Daily Bulletin remarkably accurate and an indispensable aid to our business in locating prospects. As we have had some experience with similar publications, we are of the opinion that the Daily Bulletin is unequalled in its particular sphere, and we unhesitatingly recommend it to anyone desiring information in regard to manufacturing or building enterprises.

**WHY NOT BE TRUTHFUL?**

The Philadelphia Press, like most partisan papers, never seems to hesitate to make misstatements if by so doing it can twist facts to support its arguments. In discussing the suffrage question in the South under what it is pleased to call "The Southern Problem," it says:

Such base discrimination on account of color is demeaning to the men who engage in it. It keeps immigration away from the South. The progress that has been made is confined largely to manufacturing. But that helps the agricultural districts to a considerable extent. What has been accomplished under republican rule in the nation and a protective tariff is summed up by Mr. Richard H. Edmonds, editor of the Manufacturers' Record, in these words:

"The wealth of the South today, with its population of 25,000,000, is equal to the wealth of the United States with its 31,000,000 in 1860. The South is now mining six times as much bituminous coal as the United States mined in 1860. It is making six times as much pig-iron, its output of oil is 50 times as great as that of the whole country then, its lumber output is more than double, its railroad mileage is twice as great, and its total wealth is over \$16,000,000,000, against \$16,100,000,000 for the whole country in 1860."

That is a very satisfactory advance. But if the race problem were eliminated by fair election laws and the section divided in politics so as not to give solid support to such dangerous "isms" as those advocated by Mr. Bryan, a tremendous step forward would be taken. There would be an abandonment of such wild vagaries as those advocated by the democratic party, because the elimination of the 40 fraudulent votes which it now gets in the electoral college because of the disfranchised colored men would force the democrats to adopt higher grounds in appealing to the people with any hope of success. The change will probably come in time.

It was Southern conservatism reasserting itself that saved the country from the danger of another campaign based on the wild socialism or populism of the West, and which, by the way, found its chief supporters not among Southern men, but among New England and Western men. But we are not dealing with politics. The Press says:

Such base discrimination on account of color is demeaning to the men who engage in it. It keeps immigration from the South. The progress that has been made is confined largely to manufacturing.

How far from the truth is the last statement is seen in the fact that between 1880 and 1900 the value of the South's farm products increased from \$600,000,000 to \$1,271,000,000, or 72 per cent., while population in the same period increased only 44 per cent. During the last three years agricultural progress has made still greater strides, and the value of the South's farm products in 1903 was over \$1,700,000,000. The suffrage question raised by the Press has nothing in the world to do with keeping away immigration. On the contrary, it is a strong factor in behalf of law and order and honest politics, all of which are powerful helps to draw population. The reason why immigration has only lately turned South in large volume is so plain and simple that such stuff as the Press has put forth does not fool any intelligent reader. Is the Press catering only to the unintelligent?

**FIG-IRON PRODUCTION.**

The total production of pig-iron for the first half of 1904 was 8,173,438 gross tons, against 8,301,885 tons for the last half of 1903, and 9,707,367 tons for the first half of 1903. The bulletin of the Iron and Steel Association, from which these figures are taken, shows that the production for the second half of 1903 and the first half of 1904 amounted to 16,475,323 tons, against 18,721,100 tons for the second half of 1902 and the first half of 1903, when the boom was at its

height, a falling off of 2,444,777 tons, but the production of the first half of 1904 was greater than any half-year prior to the second half of 1901.

**Literary Notes.**

Part 4 of Volume IV of the Lower Norfolk Virginia Antiquary, edited by Edward Wilson James, Esq., of Norfolk, contains a most interesting account of the laying of the cornerstone of the Norfolk Academy in 1840, a half-tone engraving of the building being the frontispiece of the number. Other features of this issue are a list of marriages in Princess Anne in the early days of the century, a list of whites and blacks in certain portions of Norfolk county in 1782, a list of carriage-owners in Princess Anne county in 1852, and a list of slave-owners in the same county in 1840. Additional data regarding the famous school of Miss Serena Holden are presented, together with abstracts from the Norfolk county marriage bonds in pre-revolutionary days, and from the records of the church in Lower Norfolk county. With this issue appears a full index to the whole of Volume IV, greatly facilitating the handling by the student of this valuable contribution to the history of Virginia.

The Implement Blue Book. 340 pages.

Bound in blue cloth. Midland Publishing Co., St. Louis, Mo.

This book contains the names of manufacturers of American agricultural implements by full indexed classification, with an appendix which contains in detail information concerning the sale and distribution of implements and wagons, etc., by branch houses, jobbing houses and transfer houses covering all goods at every implement center throughout the United States and Canada. The scope and value of the book is indicated by the fact that the information which it contains is the result of careful analysis of over 2500 catalogues issued by over 1100 manufacturers. It is a concise compilation embracing all American agricultural implements, past as well as present, and arranged in such form as will admit of quick and easy reference.

Carding and Spinning. A book for practical mill men. By G. F. Ivey. Published by G. F. Ivey & Co., Hickory, N. C.

Several years ago Mr. Ivey, who is superintendent and secretary of the Ivey Mill Co. of Hickory, published a book called Loom Fixing and Weaving, treating the subject in a thoroughly practical manner. That book went through two editions, the second being now almost exhausted. From time to time the author has received many inquiries for a book on carding and spinning written on the same general lines, and in response to that demand has written the present work based upon information acquired through many years' experience of the author, supplemented with that of some of the best mill men in the country North and South.

**American Mining Congress.**

At the American Mining Congress at Portland, Ore., August 22-27 addresses will be made by representatives of mining interests in various parts of the country. Prof. C. J. Norwood of Kentucky, Dr. I. C. White of West Virginia, J. D. Hyde of North Carolina, R. A. Shiffett of Tennessee, E. J. Watson of South Carolina, Prof. William Bullock of Maryland and Prof. S. W. McCallie of Georgia are among those appointed by the governors of their respective States to present papers upon the mineral resources of those States.

**ON ACCOUNT OF 12-CENT COTTON.****Good Prices for the Staple Responsible for Southern Building Activity.**

In a letter to the Manufacturers' Record a leading New Orleans firm, referring to the proposed erection of a large building for its business, wrote: "This is all on account of 12-cent cotton." That letter suggested a special inquiry as to the effect which the higher price of cotton lately has had in awakening throughout the South a wider interest in building operations, both as to dwellings and as to business houses of all kinds. Accordingly a number of representative architects in the Southern States were asked for expressions as to the outlook for building operations as an outcome of the ability through increased prosperity to have better homes and better business establishments. In reply about a score of letters have been received thoroughly reflective of general building conditions, and nearly all tracing present activity, promising to be greater in the future, to the financial easement of the people through good prices for cotton or other agricultural products. Not only is there activity in building in town and country, but the tendency is to provide better structures than heretofore. The letters follow:

**Profits Spent in Buildings.**

Thomas Sully, New Orleans, La. There is no question but what the higher price of the cotton crop during the past three years throughout the South has stimulated to a very great extent the construction of all classes of buildings. Cotton is the principal product of the South, and brings the greatest amount of money into circulation and makes the entire population richer or poorer each year according to the price the staple brings. It affects almost every interest—the planter first, afterwards the dealers who sell to the planters and advance the money to carry the crops. In the last three years the price of cotton throughout the South has been considerably above the cost of production of the staple, and the surplus money has paid off the old debts of the farmers and put cash in the hands of the merchants and manufacturers, and left in a great many instances a very large surplus of ready cash with the planter himself. The Southern people have always been noted for their liberality, and also known as good spenders, and this additional money throughout the South is being very largely expended in better homes, schools, commercial and public buildings. If the price continues to be above the cost of production, which I sincerely hope will be the case, there will be an immense amount of prosperity, and consequently the construction of numerous buildings throughout the Southern States. I can see a very marked improvement in values in real estate and the prosperity in this city, and we all expect a tremendous amount of building construction in the next two or three years. A more serious problem, however, seems to be the labor organizations throughout the South, especially in this city. There are not enough skilled mechanics in the larger cities of the South to handle the work that is now offering; the consequence is that we are handicapped with labor organizations, who are striking and demanding shorter hours and greater pay. The condition in this city has been very unsettled and disturbed for the past 18 months, and just at present there is no apparent improvement to be expected in the near future. The contractors are trying to work non-union men in many instances, and the situation is disturbed and unsettled, greatly to the regret of the architects, capitalists

and constructors of the buildings. It is to be hoped that this condition will be finally settled in some satisfactory manner, as it is seriously retarding the otherwise natural desire to build on the part of men of means.

**No Reflection of Dullness.**

Soule & MacDonnell, New Orleans, La.: There is at the present time a great deal of building going on in New Orleans, principally in moderate price residences (about \$4000 to \$5000 in cost). The high price brought by the 1903 crop of cotton and of the previous crop to some extent is, we believe, the natural source of the present money supply for this building. There is a marked tendency toward better building methods in every way, and we feel optimistic as to the future, though the merchants generally are crying out that the present time is the dullest period in their business in the past eight years. This is in no way reflected in the building line.

**Cotton Has Done Its Share.**

Watkins & Hutchisson, Mobile, Ala.: In this locality there is a very prominent increase in the amount of building being done this year over any former year in the last 10. We do not think that the price of cotton is the sole cause of the improved conditions in this city. No doubt it has done its share. There are so many other conditions that tend to the upbuilding of Mobile that it is not easy to give any one the preference.

**Mill Construction Checked.**

J. E. Serrine, Greenville, S. C.: As our work is principally in cotton-mill building, we are obliged to say that high-priced cotton has not helped any; in fact, there is very much less building in cotton-mill lines as the result of high cotton. We do not think this is true, however, of other lines, and I think, on the whole, that other building operations have been increased by reason of the fact that there is more money in the country than usual.

**Where Industries Are Varied.**

McIver & MacKay, Ocala, Fla.: The building business in this section is very brisk. Yet we cannot attribute this to cotton. Our section has diversified industries—phosphate mining, turpentine farms, farm trucking and cattle-raising, the latter in its infancy, but a very promising industry. Therefore, while cotton may slightly contribute, it by no means is the primary cause. Business generally is very good throughout this territory.

**Homebuilders' Faith in the Future.**

Chas. W. Barrett, Raleigh, N. C.: A large part of my business is done with the smaller towns scattered about the country, and is about evenly divided between business houses and homes. The only reason for this is the increased profits derived from the great Southern crop. There has been greater activity in this locality this season than ever before, with bright prospects for the future. Without a doubt cotton will bring a good price next season (the coming crop), and progress and improvement will be noticed in all directions. During the past four years of my practice the quality and completeness of the homes erected has increased 50 per cent., and in most cases they are willing to build smaller in order to get the conveniences and workmanship. They have faith in the future.

**Where Cotton Did Its Work.**

A. F. Walker, Atlanta, Ga.: I think the present condition of the building business is not as good as a year ago, but think

it would have been much worse except for the high price of cotton this past season.

#### Looking for a Banner Year.

Glenn Allen, Waco, Texas: I think the high prices of cotton have materially affected the building business in this State, especially in the smaller towns. I have under construction myself several buildings which I know are due to the higher prices and activity in the cotton market. There is a large amount of building going on now in this State, and a still larger amount contemplated, and I think we may look for a banner year in the building business in Texas this fall and next year.

#### Desire for Better Homes.

Frank P. Milburn, Columbia, S. C.: I have not felt in my business the recent depression that I understand has extended over the northern portion of our country. I have as much work on hand as I ever have at this season of the year, and have had about all the business I could take care of. I really think that the Southern States will be greatly benefited by getting good prices for their cotton. There has been complaint in some lines of business, but I have always considered my business to be a very good thermometer, as it were, of general business conditions of the country. Making a specialty of public buildings, I find that public officials usually make improvements and erect new buildings at times when they have surplus funds on hand. I think from the present outlook that we can safely count upon having as good a business year as the one we have just passed through. There is a desire and demand for better classes of buildings and homes throughout our entire Southern country.

#### The Standard Rising.

Thos. H. Morgan, Morgan & Dillon, Atlanta, Ga.: Taking the experience of our office, we have found a steady and fairly uniform volume of building throughout the South for the past several years. With the beginning of this year, however, we noticed a marked increase in the number of inquiries we received in regard to new building projects. We believe the higher price of cotton has brought about this activity in building operations, and we confidently look for it to continue for some time to come. We think the standard of building throughout the South is higher and better year by year. We build more fireproof buildings, better business buildings and more convenient and attractive dwellings; in fact, the South is keeping step with the North and West in all that relates to good building.

#### Not Due So Much to Cotton.

S. B. Haggart, S. B. Haggart & Son, Fort Worth, Texas: A great amount of improvements are in contemplation, both in the business and residence sections of our young city, and the building interest is notably on the increase; so the outlook for our future is exceedingly encouraging. However, it is not accounted for so much by the increase in the price of cotton as it is by the number of railroads centering here and the immense packing plants of Swift and Armour, which assure us a permanent metropolis.

#### Small, But Advancing.

J. H. Jones, Magnolia, Ark.: Magnolia is a small place, with not more than 2500 people. Within the last six months there has been more than \$20,000 spent on dwellings. I think there will be several nice houses go up here within the next few months. There will be a \$7000 building let next Saturday, and our people will build a new courthouse some time in the near future.

#### Inclination to Build.

S. J. Mayhew, president Huntsville Savings Bank & Trust Co., Huntsville, Ala.: Since the advance in the prices

of cotton there has been not only a manifest improvement in the condition of good living with everybody, especially the planter, but there has been, through this part of the country, a strong impulse, both with the planter and dealer, to build and improve property and to invest money in building. This will continue and improve if the advance price of cotton is maintained.

#### For a Year of Activity.

Charles Edward Choate, Augusta, Ga.: The building business has not opened in this section so as to make it possible to forecast the business of the new season, but there is the feeling among business men here that a year of increased activity is before us, and we expect the building business to enjoy some of that prosperity. There are real-estate men in the city who talk very hopefully of the outlook in the building line, and who believe that conditions have improved since last season, and that we may expect at least a normal year's business for the season of 1904 and 1905. Last year in Augusta was very dull, owing, as I think, to the bearish attitude of our mill owners. The territory within a radius of 150 miles around Augusta shows considerable activity in my line, and a larger number of people are building homes that measure up to the best standard than have ever done so in my territory before. The feeling is in the atmosphere that the South is now on the threshold of a splendid future, and that the tide of success is bound to continue rising.

#### Diversification Has Helped.

Hubbell & Greene, Dallas, Texas: We have noticed a considerable improvement in building operations since January 1. This improvement consists not only in the increased amount, but in the increased cost of our buildings. Several years ago "any old thing" was good enough, but during the past few years, and especially this year, our instructions have been to "make it modern in every respect." We regard the outlook as being brighter and more encouraging than at any time during the past eight years. This increase in prosperity resulting from the high price of cotton is ably seconded by the theory of "diversification," which has taken a strong hold on our people. Fruits, early vegetables, grain and farm products, which we formerly imported, are now being raised for the home and Northern markets. This system of diversification eliminates a "total crop failure," and as a consequence Texas is not in the market as a borrower, but as a lender. While Texas is generally considered an agricultural State, yet we would not have you overlook our "infant industries." We are in need of all kinds of factories, and until we get them we will continue to be the distributors for Northern and Eastern mills to our population of nearly 4,000,000.

#### Demand From the Country.

L. F. Goodrich, Augusta, Ga.: There is not a doubt that the price of cotton has given much work throughout the country districts. I have never known the demand from this source to be as great as at this season, and as yet there is no let-up.

#### Offset by Money Troubles.

P. E. Dennis, Macon, Ga.: In the matter of the effect of the price of cotton on the building condition in this section, allow me to say that the breaking of two of our local banks, one of them a private institution with a deposit account of nearly \$2,000,000, has counteracted any boom that might otherwise have been on with us. Still the season is quite as good as it was last year.

#### To Be Independent of Cotton.

Edwards & Walter, Columbia, S. C.: We have had an exceedingly fine business

all of this year. We attribute the building activity in the South to the general prosperity of the country throughout and to the progress of the South in particular, to which section our business is entirely confined. It is entirely too broad a statement to say that we account for this in the fact that cotton has been 12 cents per pound. There are too many tributary reasons for progress to attribute it to any one cause, but, of course, this general statement will hold good forever, that as long as the agricultural class of people are prosperous the balance of the country will be prosperous. We attribute the advance in the South to the natural causes, which are bound to restore it to its place of wealth, for it has the resources, climate and the people to reinstate it, and we attribute some of the increase and advance in busi-

ness of this year to this philosophical view. We believe that five-cent cotton would check our progress, but it will not hesitate as long as cotton is not below eight cents, and in the next 10 years, if our manufactures increase as rapidly as they have in the past 10, we shall not fluctuate in our onward march with the price of cotton.

#### Enterprise in Building Prompted.

Henry H. Johannsen, Orangeburg, S. C.: I feel assured that the increased price of cotton has already awakened interest and prompted enterprise in building and manufacturing enterprises. If the price of cotton continues high our people undoubtedly will have better houses, more comfortable homes and a larger degree of prosperity. Inquiries directed to me already indicate the above results.

## ITALIANS IN THE COTTON BELT.

[Special Correspondence Manufacturers' Record.]

Greenville, Miss., July 28.

"In this part of the country, which is known as Washington county, Mississippi, Italians are in very good condition, and all make money in planting cotton. One family of two or three will clear on 20 acres from \$200 to \$300 outside of all expenses, and we have a good many Italians that have bought land in the last four years, have a good orchard and also a vineyard of their own. And we have a town of about 10,000 that has about 150 families of Italians in the neighborhood. A good many of these families have been here for eight years, and last year about 20 families went back to Italy, and at least they had from \$4000 to \$8000 to a family with them."

The above is a letter received from Mr. J. V. Roselli, a prominent citizen of Greenville and a man of affairs. On receipt of this letter I looked Mr. Roselli up and asked him a few questions, which I here repeat and give the answers:

"Mr. Roselli, you were born in Italy?"

"Oh, yes."

"How long have you been in the South?"

"Twenty years."

"How much money did you bring from the old country with you?"

"Practically none."

"What business have you been engaged in since you came here?"

"In the cultivation of Southern soil for the production of all sorts of Southern farm product."

"How much farm and how much city property do you own today?"

"I prefer farm lands, and I own 200 acres of cotton lands, worth at least \$50 an acre, and my home in the city. I think farm lands offer to my fellow-countrymen a more advantageous investment than city property or the more contracted form of investment."

"How many Italians do you think it would be possible to place on Southern farms?"

"Within the next 10 years I think 10,000 families of Italians with the best agricultural training and agricultural inclination could be brought to this country if they were given a little assistance in getting here and reasonable opportunities to secure homes when they arrive. The South has, as you know, recently been prosperous, and land-owners, who undoubtedly need more labor, are more than willing to furnish land, houses, stock, implements and provisions to a satisfactory class of Italians, and it is my opinion that it is only a question of time when the principal and most profitable farm labor of the South will come from Italy. While the negro is shiftless, careless and lives without purpose and works when he has it to do, the Italian makes the best of every

opportunity and brings from the soil the limit of its producing capacity.

"As an Italian, I can say with full confidence to my countrymen that there is no place within my knowledge that offers the attractions and the profit from their industry in an agricultural way than the South does, and I regret that I have not the means of making this fact known to them better than I have.

"The soil of the South is rich, the lands are reasonably cheap, and there is room here, I mean lands and markets, to make 50,000 Italian families independent and happy, and I am looking to the day when they can be made to understand this and take advantage of it. I will certainly do everything that I can to help advise them of the situation, and I am glad that the Manufacturers' Record, the greatest business paper in the world, has taken the subject up."

Let every Italian that is willing to work on a farm and earn his living by the sweat of his brow come South. The opportunity of the industrious Italian who has to till the soil lies in the southern portion of the United States, and I want to get as many of them here as possible.

LEE J. LANGLEY.

#### ITALIANS AS FARMERS.

Success in the South Is Attracting Attention.

Editor Manufacturers' Record:

I have read the valuable article on "The Italian as a Farmer in the Southern States" in the Manufacturers' Record of June 30 with the greatest of pleasure, and am confident, after an extremely intimate acquaintance with Italian people of this country, that all the statements and inferences in the article referred to are well founded and absolutely correct. In the 25 or 30 years that I, speaking their idiom, have known our Italian-Americans, who always make good citizens, I have ever found them to be honest, industrious, patient and painstaking, and I have seen very many of this prepossessing and engaging nationality—not counting the large number who reach us duly provided with ample capital, or who are, as skilled workmen, already in possession of a remunerative trade—steadily and surely advance themselves from being lowly day laborers or owners of the humble pushcart, to conditions of greatest prosperity in husbandry, commerce, manufactures, finance and politics. In every field of usefulness the Italians' degree of success is now, and has long been, phenomenal. But Italy is essentially an agricultural country, and there her sons have for ages learned to till the soil to perfection and to become thoroughly conversant with its products. All kinds of grain, fruits,

berries, nuts, hemp, cotton, tobacco and the olive are alike familiar to the Italian. He knows how to grow them, how to preserve them and how to market them to the best advantage.

In view of the above facts, and on account of his peculiar skill, the Italian in search of more ample elbow-room and a fresher and broader field for his marked abilities as a farmer ought easily to find in the Southern States, the garden of America, a new habitat and a congenial home. There, in an equable semitropical climate, free from sirocco and from volcanic and other violent terrestrial convulsions, in an atmosphere exactly suited to his physical character, and with the aid of the rich and fertile soil, there he cannot only continue to cultivate all the favored natural products with which he has been familiar since childhood, but he could also raise many other crops, at present unknown to him, with great and ever-increasing financial benefit. His quick adaptability to new surroundings would prevent him from being a stranger in a strange land, and with greater freedom of action, under vastly-improved conditions, with better appliances and superior facilities of communication, his reward would far surpass his most fanciful dreams, and his domestic comforts would not be exceeded even by those of the nobility of the land of his birth.

B. F. G.

Baltimore, Md.

In reproducing in full from the Manufacturers' Record an article bearing upon Italian immigration to the South, *Il Vesuvio*, an influential paper of Philadelphia published in the Italian language, says:

"In the number of June 30 of the Manufacturers' Record of Baltimore Mr. Lee J. Langley publishes a most interesting article on the success of the Italians as farmers in the South. The article is entitled 'Italians as Southern Farmers—Striking Characteristics of Their Success and Value to the Community,' and as it combats certain prejudices which are unfavorable to the Italians who emigrate, we feel called upon to translate it in order not to deprive our readers of an article which redounds to the advantage of all."

*Il Vesuvio* follows its translation of the article with these words:

"This is the article which Mr. Langley has written and which we have translated in order to let our fellow-countrymen and as many as may read it know how much the Italian farmer is appreciated by those who recognize his indisputable merits. We have added nothing, because that would but spoil the substance. We only say that not alone in the South of this great republic have the Italians acquired the fame of excellent farmers, but also in the East and in California, where extensive holdings are cultivated in every kind of fruit by Italians and are owned by them.

"One will not go there much without recognizing that the Italian is not a vile race, but, on the contrary, is a people who, loving work, does its duty to itself and is useful to others, and we can with right say and affirm that the agricultural development of the American nation is due in greatest part to the laborious work of the Italians, of that so much despised people, of the hated Dagoes, who are bad only in that they come from an agricultural stock par excellence, and who at one time dictated laws to almost the whole known world.

"The glory of the ancient Romans, who, after the battle, left their arms in order to take up the plow and cultivate the soil, will rearise pure and venerated in this land, which presents so many and such great resources. In these immense extents of ground, always ready for cultivation, the agricultural genius of the Italian

people can develop itself from the moment that facilities come, either through public or private establishment, to those who intend to seek for themselves a profitable existence by opening up and cultivating the virgin soil. We do not see why so many of our countrymen go idly the livelong day from one thing to another, playing cards maybe, very often ending in a dispute.

"If work fails in the north of this country, let the Italian go to the South, let them rent, if they cannot buy, a piece of ground, let them cultivate it, and in a short time their family will be leading a life of comfort and happiness. This is

the mission of the Italians in this country. Make yourselves loved and respected by way of agriculture."

Dominico Alessi of Independence, La., writes to the Manufacturers' Record as follows: "I must say that I am very thankful to Mr. Langley for the great honor he has given to the Italian farming colony at Independence and to the movement in the entire South. I also am very thankful to the Manufacturers' Record for the great trouble it has taken in calling my attention to *Il Vesuvio*, so that I may read it to my countrymen, that they may know what honor Mr. Langley has given them in the Middle States."

## The Mississippi Industrial Institute and College.

By LEE J. LANGLEY.

[Written for the Manufacturers' Record.]

The Mississippi Industrial Institute and College has been in operation for the past 17 years, and during this time something like 5000 young women have been under its instruction. This year 700 girls, each of them learning life's most practical lessons, have been enrolled on the college register.

That the work accomplished in the institution is of high order and very thorough is attested by the estimate placed upon its graduates. Wherever they go they hold front rank, and a large proportion of the A. B. graduates are filling with distinction chairs in Southern colleges, while those from the industrial department secure excellent positions as stenographers, bookkeepers, milliners, dressmakers, designers, housekeepers, etc., and the college receives many demands for young women to fill these places.

The purpose and aim of the college is the moral and intellectual advancement of the young white girls of the State, and believing that the educated mind should be met by the skilled hand, this college offers the very best advantages to be had in bookkeeping, photography, stenography, telegraphy and typewriting, and in designing, drawing, engraving, painting and their industrial application, fancy needlework and dressmaking, millinery and domestic science. This does not preclude the classical education, for this part of the educational work is well ordered and every branch of study under the direction of accomplished instructors.

The college offers three courses of study, a business course, a normal course and a college course, and the curriculum of the college course is high, conferring either the A. B. or the B. S. degree. Kindergarten is optional in the normal course and music is included in the business course. In order to graduate from the college, normal or business course, the pupil is obliged to take up some one branch of the industrial course. The pupil is allowed to make her own selection of an industrial, but once selected, she must stick to it until the course is satisfactorily completed.

Than Columbus, no more ideally located selection for a school could have been made. Columbus has a population of 8000, and is one of the most artistic towns of the State, and is noted for its refinement and culture. The country here is gently rolling, and bordering the town is the famous Tombigbee river, whose dark flowing waters, spanned by an artistic bridge, give the needed touch of picturesque to the pretty little city upon its bank.

Stretches of vivid green, relieved by bright-hued flowers, adorn every home, from the lowly cottage to the imposing mansion, while magnificent trees shade the wide graveled streets. The cottage itself only repeats in larger measure this

combined beauty of architecture, lawn, fine trees and pretty flowers. The college chapel, main dormitory, Columbus Hall and annex are built of brick and connected by bridges, and are so situated that they form an imposing front of nearly 564 feet.

Industrial Hall, erected in 1902, is some 200 feet distant, and connected with the other buildings by a covered corridor. This building is of pleasing architecture and is four stories high, and complete in every detail of its appointments. It contains 42 classrooms, wide and lofty halls, numerous closets, lavatories and lockers, and is finely lighted, heated and ventilated. All of the industrial departments, as well as most of the literary, are located in Industrial Hall. A contract was let a few weeks ago for a \$40,000 music building containing 60 recitation rooms and an auditorium with a capacity for 600 people. The "Tom Franklin" Hospital, so named in honor of the gentleman to whose efforts in its behalf its erection is mainly attributable, is complete in every way, with all modern appliances and perfect hygienic and sanitary arrangements. It is two stories and a-half high, and is in a more secluded part of the grounds, though it is connected with the other buildings by a covered corridor. There is also a fine and modern up-to-date laundry, which was erected in 1902. An artesian well furnishes pure water, while all the buildings have modern conveniences, are heated by steam and lighted by electricity.

The grounds cover an extensive tract of 29 acres, and besides the eight large buildings which they contain, furnish ample room for a park, gardens and for all outdoor recreation, such as tennis, basket ball, etc., for the students.

All told, the college property is valued at nearly \$500,000, and the State appropriates yearly a large sum towards its maintenance. It is possible for a girl to receive an education at the Mississippi Industrial Institute and College and make her own expenses and yet not feel that it is charity taking her through. Serving in the dining-room, work in the dressmaking department, in the school postoffice, clerical work in the president's office, caring for some of the rooms, etc., give sufficient compensation to pay her expenses through college.

Each county in the State of Mississippi is allowed to send a certain number of girls to the institution, in proportion to its number of white, educable girls as compared with the entire number in the State, and the president of the college makes the apportionment.

The idea of such an institution as the Mississippi Industrial Institute and College was originated by noble Columbus women, aided by other broad-minded women of the State, and owing to their persistency and efforts the legislature of 1884 passed the bill providing for its es-

tablishment. As the records show, this college has been from the very start a great success, and is constantly growing. The idea of the college is that "intelligent motherhood is the best provision for intelligent citizenship," and that "the best service ever rendered a country is that of a wise mother, the next best that of a wise teacher."

As one looks back over the history of woman, peers into the dark ages when she was the toy of man and his chattel, which ignoble position she held until the teachings of the gentle Nazarene placed her in a brighter light upon a higher plane, while education has till further emancipated her, one realizes the heights to which she has attained as exemplified by the attention and care now given to her mental, physical and moral well-being and the devotion to her intellectual uplifting and industrial equipment, of which the Mississippi Industrial Institute and College is an exponent.

Mississippi has taken a high stand in regard to female education, and all over the State is felt the refining influence which the presence of educated trained women bestow.

A. A. Kincannon, the able president of the Mississippi Industrial Institute and College, is the right man in the right place. Keenly alive to every interest of the college, faithful to fulfill every obligation, with great executive ability and unsurpassed devotion to his work, pleasant, kindly and affable, his position could not be better filled.

He is assisted in his great work by an able faculty, as follows: S. C. McLaurin, business principal; Andrew Armstrong Kincannon, professor of political economy and civics; James M. Barrow, professor of mathematics; Pauline V. Orr, professor of English; Rose Jeffries Peebles, professor of rhetoric; Miriam Paslay, professor of Latin; Edith Fehnestock, professor of modern languages; Cora Q. Walker, professor of chemistry and physics; Frances P. Hooper, professor of biology; F. J. Mosby, professor of history and philosophy; Anne Fant, professor of normal department; May Farinholt Jones, professor of anatomy, physiology and physical culture; Susie Walker, assistant in mathematics; Belle F. Abell, assistant in mathematics, and Florence O. Molloy, assistant in English.

### THE BIRMINGHAM DISTRICT.

#### Attention Occupied With the Wage-Schedule Situation.

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., August 1.

It is a very difficult matter to give any reliable news about the iron market. Attention for the time being is centered in efforts to try and straighten out the tangle that permeates the labor schedule for wages. A meeting is now in progress, but it has not yet developed into anything definite. The operators so far seem to have the advantage, inasmuch as they are making advances in the ranks of labor and every day are getting recruits for their mines, regardless of the fact as to whether the mines are open or run strictly upon union rules. So far there has been no clashing, and consequently no development of any ill-feeling. The furnace interests have announced that the prices they are willing to pay and have added the statement that they are open to efficient labor regardless of unions. One thing is very apparent, and that is, that the mine operators will control their property. The mines are not full of workers, but there are enough at work to fill the requirements of the present business.

The market during the past week has been very steady and firm on the basis of \$9.50 for No. 2 foundry, and your corre-

spondent could find not a single instance where this basis was shaded. The most of the sales were restricted as to delivery to the next 60 and 90 days, but there were a few cases where deliveries were extended into the early part of next year. But as a rule this did not prevail.

Some talk has followed the announcement of the discovery of a new field of iron ore in the county of Talladega, east of the Birmingham district. But your correspondent announced this discovery years ago, and predicted then, as he does now, with added emphasis, that this field will put the furnace interests of East Alabama on a footing equal to their competitors in any part of the State. The richness of the field and its extent have been a matter of doubt with those whose judgment was founded on "they say." But the parties who now own and control it have been quietly developing the field for more than a year, and have brought it to a condition that commands only favorable consideration. More will be said upon this point in our next letter. J. M. K.

### Pig-Iron Market.

Matthew Addy & Co., in their weekly report of July 30, say:

"Undoubtedly there has been an improvement in the pig-iron market during the past week. Not only have there been more inquiries, but numerous actual sales (several for a large tonnage) have made their appearance. The strike, which is still on at Birmingham, is playing an effective part in stiffening the views of the Southern ironmasters. We hear of no iron from the Birmingham district now selling on a lower basis than \$9.50 for No. 2 foundry. A few of the independent fellows in Tennessee come into view every now and then offering their product at prices which figure out less than these when placed on a Birmingham basis, but the iron is generally of inferior quality and the quantity not large.

"There is a decided scarcity of low-grade irons in the South. Very little forge is obtainable, and a purchase of No. 4 foundry in any large quantity for immediate shipment would be practically impossible. There is quite a lively demand for malleable Bessemer for deliveries extending over the balance of this year. Most of this must come from the valley, and central and Southern Ohio manufacturers are either sold up for some time to come or prefer to only quote on standard Bessemer specifications.

"The yards of the Northern furnaces are now pretty well cleaned up. Their prices remain about the same, and a great many consumers are now asking for quotations on Northern irons for deliveries extending over this and well into next year. While nothing worthy of any great excitement has happened, or it cannot be said that a decided buying movement has been started, business has assuredly been better, and we believe that the firmer tone now prevailing is to be in evidence for some time to come.

"Prices on coke are very much firmer. Inquiries and sales are quite numerous. Consumers are now buying for delivery over the entire balance of the year, instead of purchasing from hand to mouth, as they have been during the last month or so."

### MINING AROUND MIDDLESBORO.

Coal Fields of Eastern Kentucky, East Tennessee and Southwest Virginia.

[Special Cor. Manufacturers' Record.]  
Middlesboro, Ky., August 2.

Throughout the coal fields of Eastern Kentucky, Eastern Tennessee and Southwest Virginia a great deal of activity is being displayed, although the condition of

the market is such as to cause several of the already established companies to curtail their output. Many railroad extensions to penetrate undeveloped sections are under way, and in the more remote divisions, where the probabilities of railroad extensions are problems of the future, agents in the employ of Eastern and Northern investors have been busy during the past year acquiring coal leases and surveying lands.

Most of the operators in the Middlesboro district are not affected by changes in the price of coal. Over a year ago, when coal was commanding a good price, the Mingo Hollow operators contracted their entire output to the Southern for a period of five years at a price less than that prevailing at the time the contracts were made, and the price they are now getting for their output is a great deal more than the market price.

The principal operators in the Middlesboro district are Mingo Coal & Coke, Bryson Mountain Coal & Coke, Yellow Creek, Nicholson, Ralston, Sterling, Fork Ridge and Sagamore companies. In the entire district an average daily output of not less than 300 cars is being obtained. The coke production has greatly fallen off during the past two or three years, owing to the lack of demand, but many of the concerns in this region have coke ovens, for which the quality of coal is well suited.

Of the recently-organized concerns in this district, the Winona and Bell-Jellico are making good progress. The Winona was organized last March, and is now getting out about eight cars of coal daily. The Bell-Jellico has not yet begun to market its product, as the construction of a short railway branch will be necessary. This line will be four miles in extent, and will extend across the Cumberland river, in Bell county, Kentucky, and enter the Brush creek territory, where seams are now being opened up. The veins of coal in that region are very thick, and are easily gotten at. Major E. C. Camp of Knoxville, who recently organized a company to develop several thousand acres of coal lands in the vicinity of Middlesboro, is making good progress with his work, and the product will be placed on the market within the next few months. A switch two miles in extent will be constructed to the openings.

In Knox county the Blue Gem vein, considered the best domestic coal found in this territory, is gradually being developed. The vein is not very thick, averaging from 28 to 36 inches, but it is easily mined and has a better marketable value than any other grade of domestic coal. The Barbourville-Blue Gem Coal Co. is an organization of the past few weeks which is now opening up mines and laying switches. The Knox Gem Coal Co. is also getting out the Blue Gem grade. The North Jellico Coal Co., the biggest concern in the Southeastern Kentucky fields, is now opening up its Blue Gem coal in the Wilton fields, and is engaged in laying trolley lines to the openings. The coal will be mined by compressed air and the haulage will be by electricity. This concern has the best plant in this field.

In the Virginia fields numerous short extensions are under way and big land deals are a weekly occurrence. Last week the Black Mountain Coal, Land & Improvement Co. bought 15,000 acres of coal and timber lands in Lee county, Virginia, and Harlan county, Kentucky. As soon as possible a 10-mile extension will be constructed out from Pennington Gap into Lee county, and it may be taken on into Harlan county in the near future. The territory acquired is rich in minerals, and will be thoroughly developed.

Until the past three or four years a considerable quantity of iron ore was mined in Southwest Virginia. The Virginia

Iron, Coal & Coke Co. owns several furnaces, the largest of which is located at Middlesboro, but they have not been in operation for some time. When these furnaces were in blast they furnished a local market for a great deal of coke, and with the prospect for a better iron market in the near future several of the coal companies are erecting additional coke ovens. The Middlesboro furnaces have been undergoing thorough repairs this summer, and it is the intention of the company to put them to work this winter.

Along the Louisville & Nashville's new extension from Jellico to Knoxville, a distance of 70 miles, numerous mines are being opened up, and when the road is completed many of the mines will be in operation. The new line will furnish the L. & N. with another direct route south. The L. & N. is also engaged in building an extension over into the Clear Fork coal fields down on the Kentucky-Tennessee border. For a long time that territory was much sought after, both by the Southern and the L. & N. people, and numerous wrangles occurred over rights of way. Finally matters were adjusted, and both companies are now working in harmony. The Clear Fork coal fields are controlled by the American Association, composed of English capitalists. W. S. HUDSON.

### SOUTHERN MILL CONDITIONS.

Good Feeling of Employers and Employees Illustrated.

An address delivered to the pupils of the graded schools of Piedmont, S. C., by President James L. Orr of the Piedmont Mills is a typical reflection of the spirit which prevails in Southern cotton-mill centers and of the good feeling existing between employers and employees. At the beginning President Orr said:

"The old maxim, 'it is an ill-wind that blows no one good,' is again verified. The fire of the 3d of December, which swept away all our stores, made rebuilding necessary, and the directors determined to give the people of Piedmont a hall and the secret orders nice lodge-rooms centrally located. The result is that we not only have four stores, well built and beautifully furnished, but the handsomest hall in the State, 50x100 feet, with a splendid stage without an obstruction and all the necessary equipment for a modern theater, consisting of dressing-room, scenery and everything required for an up-to-date exhibition of any kind. It is claimed by some that this expenditure is not only unnecessary, but extravagant, but observation and experience teaches that rest and recreation are not accomplished by idleness or loafing, but are best effected by a change of occupation and scenery. All work and no play makes Jack a dull boy, so the treadmill life of working people should have some change which will interest, entertain and divert their minds. The expense, therefore, though very considerable, is justified by the end to be secured, and the auditorium and lodge-rooms are given freely and cheerfully for the amusement, entertainment and instruction of the citizens of the town. It has always been a theory of mine that where the physical development was equal the worker in any line of business, from the lowliest to the most exalted, can do not only the most, but by far the best work where the mind as well as the hand has been improved and educated. I have, therefore, in season and out of season, urged upon our people the necessity of giving their children every opportunity which their means and circumstances would permit, so as to fit them for a better and higher life.

"It is peculiarly gratifying to me that the first use of this auditorium, as we might say, the dedication of it, is made by

the graded schools of Piedmont. Piedmont has long been known as the center of manufacturing education in this section of the State, and during the last 25 years has sent out 42 superintendents for the mills in this State, North Carolina and Georgia. I must tell you of a conversation I had with some gentlemen in Anderson last week, which reflects great credit upon our graded school system, as well as the mill itself. These gentlemen were connected with the graded school in Anderson, and called my attention to the fact that there were three families from Piedmont whose children were then attending their graded school, Richardsons, Marshalls and Princes, and in each instance the children who had been attending these schools showed such thoroughness and proficiency that they led their classes in every instance. Another family which went away from here to Atlanta and entered two of their girls in the public schools there have shown similar advancement, and other children that I have heard of have kept up the record. This is a matter of congratulation; in fact, I am as proud of it as of any feat that we have accomplished, and I appeal first to the children and next to the parents to continue the good work; the one to appreciate and improve these opportunities, the other to make whatever sacrifices are necessary to give their little ones the advantage of such thorough training. We teach six hours each day for 10 months each year, and steady work is what counts."

Drawing homely and sound illustrations from the daily life of his hearers, President Orr unfolded his argument for education and elaborated upon the duty of parents to give their children a good start, and upon the great influence of the real teacher. He said:

"It is said that we never appreciate the good until we have lost it; our success until it is gone; our indebtedness until we cannot pay it. This community can realize how true this is. For 19 years we had among us a teacher who has taken our children almost from the mothers' arms, and by her kindness, her perseverance and unbounded love has taught them not only their lessons, their reading and their writing, but has inculcated into every child who went to her principles of virtue, truth and religion. In her long term of service she was tried beyond measure with the fretfulness and peevishness of the little ones and the lack of interest of parents, yet during the whole time she never faltered, she never struck one of the little ones in her charge, she never said a cross or insulting word to a parent, but labored unceasingly, uncomplainingly and unostentatiously for the elevation and enlightenment of the little ones that she loved with her whole heart. In the Sunday-school and in the church she was equally valuable and unsparing of herself. If the true measure of greatness is the amount of good that we have done for others in this world—and I believe it is—then Miss Mamie Donald is entitled to the palm, for no man or woman has ever lived in our community who has done more for the enlightenment, elevation and betterment of our people than she. Thoroughly unselfish, she devoted her life to the good of others, and this community without a single dissenting voice can faithfully say: 'Well done, thou good and faithful servant.'

"No one who has witnessed the celebration today of this school, the singing, the acting, declamations, whether he be a parent or not, can fail to be gratified, yes, delighted, with the progress shown. These young people, boys and girls, are to take our places in life, for we are passing away, the men to go out in the world and

in the mill and in the shop to attain promotion and success, the women to bring up the next generation and guide them in the ways of truth, virtue and religion. I am delighted that they have shown such proficiency as will fit them for their several undertakings. Let us make up our minds that we will from this day forward strive for the improvement of our town, our community and our State. Let the parents guide their children along the path of industry and integrity, the children honor and obey their parents, and all of us so live that the world may be better.

"There are no people on earth that have greater opportunities than we of upper South Carolina, with its schools and churches open to all. No locality that I have ever seen in this country or Europe has a finer or more salubrious climate. No soil rewards more abundantly or with greater variety the labor of the farmer.

No section of the world has increased more rapidly industrially than this during the last 20 years. Where there is such demand for capable, experienced and trustworthy manufacturers as today exists in our midst, shall we fit ourselves for these great opportunities and seize them as they appear, or shall we sell out our belongings, disregard our advantages, shut our eyes to our surroundings and seek strange lands and other fields of enterprise? Metaphorically speaking, we have acres of diamonds on our farms which we are free to dig for ourselves and enrich our minds and bodies, hearts and souls by improving our opportunities. Shall we walk blindly over them every day and finally sell out, move off in search of imaginary advantages, and when old and worn with wanderings and toil realize too late that we have recklessly thrown away a golden harvest?"

## SOUTHERN MINERALS AT THE EXPOSITION.

[Special Correspondence Manufacturers' Record.]

St. Louis, Mo., August 1.

In no department of the World's Fair does the South show greater evidence of progress and an awakening to the possibilities which her rich resources offer than in the department of mines and metallurgy. With two or three notable exceptions, the whole South is here splendidly represented, and many of the displays made by the States of the South are unsurpassed in completeness and interest by those of any State or foreign nation participating. The gigantic statue of Vulcan, which towers aloft above the Alabama exhibit, is the most notable figure at the fair, and strikingly typifies the vast importance of the iron interests of Alabama. The coal of Virginia, West Virginia, Kentucky, Tennessee, Alabama, Missouri, Arkansas and Indian Territory is fully exploited here. The petroleum of West Virginia, Kentucky, Indian Territory, Texas and Louisiana is represented by numerous samples and statistical tables. The many beautiful marbles and building stones of a large part of the South are shown in blocks, columns and slabs, and are everywhere receiving enthusiastic comment. Missouri's splendid zinc exhibit is followed by a surprisingly large display in the Arkansas booth, and Tennessee and Kentucky also show some very fine specimens. Clay products are shown from nearly every Southern State between Maryland and Texas, and the superiority of some of the displays demonstrates the vastness of the field for a further development of these widely-distributed resources. By an inexplicable oversight Florida has no display in this or any other building at the fair, and South Carolina has here only a huge block of granite and a booth where some of her mineral waters are sold. Tennessee is thus left to bear the brunt of the phosphate display. This she does in very good shape, however, and with her in this is Arkansas, whose almost unknown phosphate resources are very strikingly presented.

There is tin from North Carolina and quicksilver from Texas, together with gold and copper from several Southern States, and there are precious stones and rare products of the mine from many parts of the South, some of them found nowhere else on earth.

Altogether the displays are far better than ever were made by the Southern States at any other exposition, and in the case of Texas it is the first time she ever made an appearance with a State display at any world's fair. Prof. J. A. Holmes, chief of the department of mines and metallurgy, declares the exhibits to be in the main very complete and satis-

factory, and he says they are attracting much favorable comment by visitors, and that the department has received a great many inquiries regarding Southern resources and the opportunities for investment there. On this account there is much criticism indulged in over the failure of South Carolina and Florida to make displays, and it is also a matter of surprised comment that West Virginia should have so almost entirely left the presentation of her resources to the enterprise of her important coal companies.

The most elaborate display in the Mines Building, bar none, is that of Missouri, which spent \$75,000 here out of the million which this State has devoted to representation at the fair. Everything here is elaborate and complete, and the space is ornately inclosed. There are not only specimens, but processes as well, as in the case of a tippie of standard type, but in miniature, which is in operation to show how coal is raised from the mine shaft, screened, sorted and loaded on to cars, all automatically. The coal industry is further represented by massive blocks of coal from the various mines of the State, and there are show-case specimens from every working mine in Missouri. There are 25,000 square miles of the State underlain with coal, which measures from 18 inches to six feet thick.

In lead and zinc the operative exhibit consists of a model concentrator, which is running throughout every day, operated by the students of the Missouri School of Mines, and a model magnetic separator, operated also by the students, which shows the separation of iron from lead and zinc ores. There are massive piles and pyramids of lead and zinc ores from each of the 37 counties of Missouri in which lead and zinc are produced, Southwest and Southeast Missouri being especially well represented. There are also eight showcases of handsome specimens of calcites and crystals of zinc and lead, beautiful and rare types, found only in the Joplin district. There is a pyramidal table of bottles of lead and zinc concentrates from various Missouri mills, showing the sizes of ores and tailings from all machines in the mills. A chemical laboratory, operated by students of the School of Mines, is occupied with analyses, illustrations of methods of separation, chemical experiments and assaying.

The iron of the State is illustrated by massive piles of the various ores, and also showcase specimens from all the known deposits in the State. It is declared that the iron industry of Missouri is brightening up very markedly, more prospecting and developing now going on in this line than for many years before. Deep drill-

ing is going on at Iron Mountain and other places in the State, and a very considerable development is anticipated.

The building stones of the State are shown in a handsomely-arranged collection of tubes resting on a base of Carthage limestone. There are 100 eight-inch cubes here, representing that many different varieties of the prominent building stones of Missouri. There are also two handsome pyramids exhibited, one of Missouri granite and the other of Missouri marbles and oyx. Another of the operative exhibits is a diamond-saw rock-slicing machine, which makes rock sections. A pagoda in the center of the space is made of Missouri hydraulic cement, and a fountain playing inside represents a Missouri artesian well. There are showcases of tripoli or filter stone shown in sawed, powder and natural conditions. This, by the way, is said to be the only deposit of tripoli worked in the United States.

The clays of the State are represented by a handsome pavilion, built entirely of clay products. The base is of enameled firebrick and terra-cotta, and the columns are of terra-cotta, supporting a roof of tile. There is also a showcase containing all the clays found in the State, shown in both crude and washed condition.

All the mineral waters of the State are shown in uniform bottles, with cards giving chemical analyses and location of the springs.

There is a case of specimens of asphalt and asphaltic oils, which come from Vernon and Jasper counties, where fields are just being opened up, with excellent prospects for an important development. Cases and piles of copper ores indicate the existence of these ores, which are found in Shannon, Phelps and St. Genevieve counties, but which have never received great development because they are low-grade ores and the lack of transportation facilities prevents great development unless prices are high. There are cases of lime and pearl buttons, the button-making industry being one of considerable importance, in a small way, all along the Mississippi river, where there are some half-dozen factories on the Missouri side. Another case contains samples of Missouri roadbuilding material and model sections of road.

A photographic exhibit on a rolling screen shows 1200 views of different mining scenes in the State, and there are also many enlarged photographs arranged on the columns of the building.

As in everything else she has done at the fair, Arkansas has provided a distinct surprise in the completeness and richness of her mineral display, and it is probably true that no exhibit in the building has attracted more attention. While it is getting to be quite generally known now that Arkansas is a State of wonderfully rich and varied resources, there are usually some surprises in store for the visitor to the booth, even though enthusiasm over the opportunities which are there found already existed. Thus it has been known for years that there are rich zinc deposits in Northern Arkansas, but it is still somewhat surprising to find in this display as large an exhibit of zinc ores as is to be seen on the grounds. That these zinc fields are attracting the attention of the general public is evidenced by the fact that there were among recent callers at the exhibit a party of Boston capitalists, who came West in a private car, and who went to Arkansas after seeing the display at the fair. That the railroads have great faith in the zinc fields of Arkansas is shown by the fact that at least three different systems are building branches into the heart of the section to secure their share of the carrying trade they expect to see created.

Arkansas phosphate has by many been

regarded as possibly somewhat mythical, but here is a gigantic specimen of phosphate rock, about four feet thick by eight feet long and four feet wide, and weighing some 25,000 pounds. The block represents the thickness of the deposit, which is one of its features of interest, as well as an important element in the commercial value of the deposit. It is stated that large deposits of this rock are found in the counties of Independence and Searcy, and that a company is operating in the field with great success. It is said to show 68 per cent. of lime phosphates and to make a fertilizer of a very fine grade. Under these circumstances a very considerable development of the industry is anticipated as soon as capitalists shall have become more familiar with the existing conditions.

Arkansas coal is already well known for the excellence of its quality, and justice is done to this interest in the display. There are immense blocks of the various kinds of coal the vast fields of the State produce, the specimens including the semianthracite, semibituminous, bituminous and lignite varieties. The semianthracite and semibituminous coals are smokeless, and on this account are meeting with a constantly increasing demand.

Prominent in the exhibit is an extensive display of beauxite or aluminum ore. Three different companies are represented in this exhibit, including the American Beauxite Co., the Pittsburg Reduction Co. and the General Beauxite Co., all of whom are actively engaged in working this ore. It is interesting to note that the greatest deposits of the ore known to the world are located in two counties of Arkansas, Pulaski and Saline.

There is asphalt, found in Pike county, and with which streets in Little Rock have been paved in a very satisfactory manner. It is stated that the deposit of asphalt here is very extensive, and that the quality is excellent, and that an opportunity, consequently, exists for profitable investment and development.

Another interesting feature of the exhibit is the showing of Batesville building stone, the material with which the new \$1,000,000 State capitol is being built at Little Rock. The Pfeiffer Stone Co. has done much toward developing this industry, and the excellence of the stone is becoming generally recognized.

The Hot Springs novoculite or Arkansas oilstone is also in evidence. This is conceded to be the finest oilstone in the world by both dealers and users, and it is sold wherever the finest oilstones are required.

Other exhibits are lead, iron (limonite), pyrite, fuller's earth, yellow and red ochre, Ozark white lime, slate, manganese ore, mineral waters, etc., many of which await development and offer attractive inducements to capital.

Among the ornamental exhibits shown are gems from the quartz crystal of Hot Springs, called Hot Springs diamonds, which have a brilliancy and color superior to about any of the imitation diamonds known to the trade.

Oklahoma and the Indian Territory have distinct exhibits, side by side, both of which are fairly representative of the mineral resources they contain. Indian Territory shows big blocks of her coal, as well as exhibits of coke, and there are also samples of her petroleum, asphalt, zinc, lead and copper. There are numerous specimens of her varied and valuable building stones, and an excellent relief map shows the geological formations of the territory. Outside of her coal interests there has not as yet been an extensive development of Indian Territory resources, but such prospecting as has been engaged in has demonstrated the existence of great and varied natural resources

there, and it is not doubted that it will be the scene of a very important development within the next few years.

Oklahoma's chief mineral display is of gypsum, in which she is particularly rich. The chief feature of the display is a large central pyramid of the two kinds of gypsum which is produced, the ordinary form and a crystallized form, the latter unique and said to be found in commercial quantities nowhere else. It is found in large lumps, is clear, having the appearance of mica, and may be split like mica. Unlike mica, however, it will melt in the heat of a stove. It withstands the rays of the sun, though, and is used for the skylights of photographers and others requiring a rather flat roof, and is a satisfactory substitute for glass in places where ordinary window panes are liable to be broken by hailstones.

The other form of the gypsum is used for cement, stucco, statuary, etc., at the World's Fair, as elsewhere, and the statement is made that 98 per cent. of all the gypsum used in the World's Fair buildings is from the mines which provided this display. They are the Okarche mines, in Dewey county, Oklahoma, and are in a good state of development. There are three fields of gypsum in Oklahoma, and estimates of the supply they contain are to the fabulous extent of 145,000,000,000 tons. In the exhibit are ground samples of nine different colors or tints of gypsum, which are used in the natural state and provide permanent colors of even more satisfactory shades than can be obtained by artificial means.

Salt is shown in the Oklahoma exhibit, which comes from two wells, one in Woods and the other in Greer county. The water from these wells is so brackish that one barrel of salt is obtained from two barrels of water simply by evaporation.

One hundred and twenty-five specimens of good building stone are shown, sand and limestone, some of which will withstand the greatest pressure of any stone known. Dolomite, with almost the texture of marble, is exhibited. So far, no marble has been found in the Territory, but there is a limestone marble found in Blaine county, and there are indications of marble in Kay county. There is a great deal of granite in the Wichita mountains, and three very fine specimens are shown in red and gray. There is a small specimen of magnetic iron ore, but nothing has been developed in this line yet, and in many other directions a good deal of prospecting remains yet to be done.

The display includes a large variety of brick, press and common, suitable clays for making good brick being found all over the territory.

Mention was made in these columns some weeks ago of the excellent exhibit which Texas has made, not only in the Mines Building, but all over the fair grounds, and tribute was paid to the splendid public spirit which moved the Texas people to raise nearly \$200,000 by private subscription to make the display she has. Her mineral display includes a full sample of her oils and petroleum products; of her ornamental and building stones, marble, onyx, serpentine, Llanite, granite, etc.; of her quicksilver, copper, gold, silver, tin, iron and lead, and it was pointed out that while there is a very considerable development in several lines, as quicksilver, silver, oil and some of the stones, there yet remains so much more to be done that a start has hardly been made. That this exhibit will do much to draw the attention of capitalists to the opportunities that exist in Texas there is no room for doubt. It is a very creditable exhibit, and is valuable in that analyses accompany all the specimens of

clays, stones and oils shown.

Louisiana's exhibit in the Mines Building consists largely of salt and sulphur displays. Her space here is blocked in with bricks of salt and sulphur, and the salt exhibit contains a large figure of a woman, intended to represent Lot's wife after she had given her famous backward glance. The quantity of salt here shown indicates the importance of the industry in the State, where there are a number of salt mines with a capacity almost unlimited. The sulphur is also indicative of the extent of that industry, and a placard on the sulphur pile here announces that the product is from the greatest sulphur mine in the world, located in Calcasieu parish, and having a capacity of 1000 tons a day.

In the exhibit there are also 60 specimens of crude and refined petroleum, and there are samples of marble, sandstone, artificial stone, pressed brick, clays, iron ores, lignite, etc. A topographical map of the State is shown exhibiting its geological and mineralogical features.

Mississippi's mineral display consists of sandstone from a number of counties; hydraulic limestone from Tishomingo county; fine pressed brick from the Montgomery Land Co., Yazoo city; a large number of fire and brick clays from various parts of the State, and an elaborate display of pottery, made by George E. Ohr of Biloxi. The pottery exhibit is especially interesting and suggestive from the fact that it serves to demonstrate what may be done with the clays of the South when anybody takes hold of them who knows how to develop their usefulness.

In the case of Alabama another chapter is due the public-spirited private citizen, for it is history that Alabama would have presented the same sorry spectacle as Florida or South Carolina had it not been for the enterprise and hard work of the Commercial Club of Birmingham. As it is, Alabama is represented nowhere else on the grounds, and yet so splendidly is her mineral wealth shown forth in the exhibit in the Mines Building, and so commanding is her central figure, the great statue of Vulcan, that this figure saves the day, and people go away from the exposition powerfully impressed with the greatness of Alabama's resources. It is additionally creditable to the enterprise of the members of the Commercial Club of Birmingham that all that has been done has been accomplished since last October. The idea of representing the iron interests of Alabama by a great statue of Vulcan originated with J. A. MacKnight, a member of the Commercial Club, and now in charge of the exhibit at the fair, and while it was enthusiastically received by the members of the club, it was doubted by the exposition officials that it could be prepared in time for the fair. A committee of members of the club, consisting of F. M. Jackson, president; J. B. Gibson, secretary; J. A. MacKnight, F. W. Dixon and Culpepper Exum, came to St. Louis, following a preliminary trip by Mr. MacKnight, and closed the deal. When arrangements were completed for space the contract for the big statue was let, and in a short time the artist, Moretti, a New York sculptor, was at work on the plaster cast. Parts of the plaster model were shipped to Birmingham in February, and when all arrived it had taken seven cars to transport the entire load. The casting in iron was begun at the foundry of the Birmingham Steel & Iron Co. in March, and when the exposition was opened, April 30, the first carload of the statue had been unloaded at the Alabama space. By the middle of June the statue was fully in place, after the most difficult piece of installation work connected with any exhibit at the

fair. The statue weighs 60 tons and stands 55 feet above the floor. It is the largest cast statue in the world. It cost \$20,000, and could not be duplicated for \$40,000. It is proposed to set the statue up in Capitol Park, Birmingham, after the fair, as a permanent memorial, although there have been frequent suggestions made in St. Louis that the city should not permit it to be taken away, but should purchase it for a permanent adornment of the parks of St. Louis.

As it stands today it constitutes one of the most original exhibits to be found within the World's Fair, and it attracts universal attention and comment. Nobody can ignore it, and no one who once sees the Vulcan is likely to forget it. Everybody calls it the "Alabama exhibit," and even the Birmingham men who produced it have not tried to restrict its benefit to their own town or district. In speaking of this spirit of magnanimity an Alabamian recently said:

"I have felt some prejudice against Birmingham, but this ends it. Birmingham has saved the whole State of Alabama and given it such a boost as it never had before. A city that will do such a thing in this unselfish manner deserves the respect, gratitude and good will of the entire people of Alabama."

In addition to the Vulcan, there is a very creditable exhibit of the ores and clays of Alabama in the space surrounding the statue. While it is proclaimed that the exhibit is inadequate in scope and in the quantities of minerals displayed—is, in fact, but an exhibit of samples—yet it does not fail to produce a lasting impression. "It proclaims to the world," says Mr. MacKnight, "that Alabama is a great mineral State, and that the heart of its development is at and near the city of Birmingham. It shows by concrete facts and official figures that pig-iron is made there at a price below that of any other point in the commercial world, and of a quality excelled by none for general purposes."

Two handsome pavilions of minerals and metals adorn the front corners of the exhibition space. The larger and handsomer of these is composed entirely of raw materials and finished products from the Republic Iron & Steel Co. of Birmingham. Four massive pillars, made of one-inch iron rods bound together, support a canopy roof of coke, which rests on a frieze of iron ore and coal from the mines of the Republic Company. An exhibit of coal, limestone, pig-iron, iron ores and rolled iron is effectively arranged under the canopy, making one of the most interesting and attractive mining displays in the building.

The roof of the other pavilion is made to match that of the Republic pavilion. It is supported by four wooden columns that are covered with iron ores, limestone, coal and coke, set on with cement. This pavilion is used as the principal souvenir stand for the sale of souvenirs of Vulcan. Near it are exhibits of coal, and of the standard car wheels made by the Decatur Car Wheel Co. of Alabama.

Both ends of the Alabama space are inclosed by a fence built of sewer pipe from the Southern Sewer Pipe Co. of Birmingham. Samples of umbrella stands, garden decorations, etc., made by this company are also exhibited.

The Tennessee Coal, Iron & Railroad Co. has a fine display of its open-hearth steel rails, which attract much attention from the experts. It is declared that no better rail is made. In this exhibit are also a varied assortment of the steel products of this company, including one of the huge billets of open-hearth steel from its plant at Ensley. The coal, iron ore and limestone of the company are also shown.

A well-arranged exhibit of the pig-iron, iron ores, coal and coke of the Sloss Company and the Alabama Consolidated Coal & Iron Co. is shown at the feet of Vulcan.

One end of the Alabama space is occupied by the mineral collection, presented by Dr. E. A. Smith of the State geological survey, and arranged in a comprehensive manner by J. A. Anderson, one of Dr. Smith's assistants, who is in charge. Specimens of cement corks, lignites, kaolins, porcelain clays, etc., are shown, and information is dispensed regarding these largely undeveloped resources of the State. Alabama marble is shown for the first time in convincing manner. Moretti, the sculptor of Vulcan, carved a wonderful head of Christ from this marble while waiting in Birmingham for the casting of his iron giant, and this sculpture is exhibited in the Alabama space. Moretti pronounced the marble equal in all respects to the best Parian or Carrara marbles, and was especially impressed with its marvelous purity of color and the wonderful fineness of its texture. The development of the marble industry has just begun in Alabama; and this display will attract the attention of marble men and capitalists to one of the State's most valuable mineral assets.

Displays are also made of the glass sands, fine clay, brick shales, building stone, etc., from all sections of the State where they abound, making in all an important revelation to the world of what Alabama has to offer to men in search of profitable investment.

"Many thousands of pamphlets relating to Alabama are being distributed at the exhibit," Mr. MacKnight declares. "Verbal and written inquiries are being received every day from people desiring reliable information about some phase of the State's resources and industries. Many prospective settlers want to know the price and quality of lands, the kinds of crops grown and other special information. In each case great care is exercised to impart the desired knowledge; so that while the exhibit represents only the State's mineral wealth, it is a means by which accurate information about all the resources of the State is disseminated. Since Alabama has no other representation in the exposition, this is an important consideration, and one which accentuates the public spirit and enterprise of the Commercial Club of Birmingham, to whose initiative and devotion this exhibit is due."

Very creditable displays have been made in the Mines Building by Tennessee, Kentucky, Georgia, North Carolina, Virginia and Maryland, and individuals have a good exhibit of the coal interests of West Virginia. In my next letter I will speak of the displays which these States make.

#### Rice in the Southwest.

In one of my letters some time since I spoke of the interest the Japanese are taking in the possibilities of rice culture in Louisiana and Texas.

A number of the Japanese who are attached to the commissions for representing their country at the World's Fair have recently been down to Louisiana, the guests of Mr. O. W. Crawford, manager of the Louisiana Rice Prairie & Canal Co., Ltd., and their impressions are of practical interest from the fact that they have begun negotiations for the purchase of lands and the location of Japanese colonists. They were pleased with the lands, with the opportunities they found, and with the chances for great development along lines familiar to them. From the report Mr. Crawford makes it is evident the first efforts of the Japanese colonists will be in the direction of raising rice for seed. The Japanese are intensive farmers, and will be satisfied with the product

of a few acres per man; but that product will be of the very highest value.

During the trip of the visitors it was revealed that great possibilities were recognized in the way of paper-making. The coarsest paper of Japan is made out of rice straw, it appears, as is also the finest, and the great quantity of rice straw that is burned up and thrown into the rivers and bayous of the South filled the Japanese visitors with enthusiasm as they realized what a good turn they could do in utilizing this waste product.

Riding along the railroad they also saw the great opportunities that exist for the utilization of the willow trees of the far Southern country, for the Japanese use the bark for fiber, the shoots for baskets, etc., and the wood for pulp, and they recognized an almost illimitable field for the exercise of their skill in working up the various parts of the willow.

All these features are but some of the opportunities which presented themselves to the visitors on their necessarily hurried trip to the South. That they will make more detailed examinations of the Southern States and the opportunities they present is a foregone conclusion, for the Japanese never do anything except in the most thorough manner. They have gone to the bottom of the rice question, and they will carry on the investigation in other lines, and it is evident that a movement of great importance has been inaugurated.

In commenting on the trip recently made, Mr. Crawford said to me:

"You know that I have recently induced four Japanese gentlemen to visit Louisiana. Each of these men is a commissioner to the World's Fair. I never had pleasanter traveling companions. Their spontaneous and ever-present politeness, learning and up-to-date business intelligence marked every day and hour I was with them.

"They were looking for a location for a colony of Japanese farmers. Of course, I am pleased that our land and location suited them.

"There are now, as you know, two Japanese experimental farming operations going on in Texas. One in West Texas at Del Rio and the other at Webster, between Galveston and Houston. These are the result of the work of the passenger and immigration departments of the Southern Pacific Railroad, and all Japan is anxiously watching and hoping for their success.

"The gentlemen who were with me were Risakuro Ota, florist to the Emperor of Japan, appointed to investigate rice lands and lands suitable to the growth of condiments, president of 11 commercial companies and associations in Japan, and representative of Japan at 27 different expositions; K. Honjo, commissioner to the World's Fair of the Tea Traders' Guild of Japan; K. Makamura, representing four leading Japanese newspapers at the World's Fair and one of editors of Japanese newspapers published on the World's Fair grounds; K. N. Ohashi, one of the agricultural commissioners to the World's Fair, and a graduate from the University of California. These gentlemen are in marked contrast with colonists we see exhibited in the press of this country. These Japanese talk very moderately about what they expect to do, not thousands of acres, large farms and large operations, but small farms, patches, we would call them. Mr. Ota said: 'We will bring farmers with families, and each head of a family will be sold at first not more than five acres. He will be an experienced farmer, who has received a course of instructions and training in one of our agricultural schools, of which we have one in every district of Japan. These schools are fash-

ioned after the agricultural departments of the American colleges; in fact,' continued Mr. Ota, 'most of our institutions are modeled after such in America. We teach English in all of our schools and colleges, and we do it because we believe it will be the commercial language of the world, and we have also a hope in it to extend the acquaintance of our people with the American people, and ultimately with American affairs.

"We look upon America as our commercial father and mother, because the opening of our commercial eyes and ports, what started the change in our hopes and ambitions, was the visit of Commodore Perry, sent by your president to our country 50 years ago.

"The Japanese language has 50,000 characters. We see it is too complicated for use if we are to be one of the modern family of nations. Our government some time ago appointed a commission to consider the advisability of a change, and it is the general opinion that the commission will recommend a change to English.

"Our population is 290 for every square mile of land we have. That is a large population to feed on the old and worn lands we have. Therefore, we must find for our people other places.

"I am appointed by our government to see the rice lands of this country and lands in Cuba and Jamaica, said to be suitable for the production of ginger and other condiments, of which we do a large business in manufacturing.

"We want to find where our people can go and grow the products to which they are accustomed. The lands which we have been shown on the La Fourche in Louisiana are very attractive to us. You know we have given much attention to producing high-grade rice. I find that you buy our rice for seed. We buy cheap rice in Cochin, China, and that is what the masses of our people eat.

"But our experimenting has accomplished a great deal. What I tell you now is not much known, but we can grow a better grade of rice here on your lands without water—flooding, you know—than the Louisiana rice farmers are growing with flooding.' Here Mr. Ota asked me the price of water to the farmers. I told him two sacks of rice to the acre—about \$6.

"With our cultivation that will be \$6 saved to the farmer,' he replied.

"We will make an arrangement with Mr. Ota's people for all the land they want, which contemplates a possible 10,000 acres, and the first instalment of farmers will be 50 families. They will be farmers of vegetables as well as rice. They will be citizens, and send their children to school and pay taxes and obtain a citizenship and play their part in the community as other settlers; in fact, in all very much as the Japanese are doing with their incomparable exhibits at the World's Fair, which you know are second to none. I am wonderfully pleased with my success in interesting these people. If they can grow in Louisiana Japan rice for seed, which we have now to import; if they can, as they say, make of the useless willow an article of use and great profit; if they can build up a great production of bamboo and make the lands, now useless, fields for a crop profitable to a degree, I shall remember with pleasure the part our company took in starting the undertaking." ALBERT PHENIX.

The Mexican-American Steamship Co., according to a report from the City of Mexico, quoting A. L. Roby, general manager, will soon begin to run steamers from Vera Cruz to Port Arthur, Texas, as well as to Galveston and New Orleans. Two new vessels are being built.

## INDIVIDUAL EXHIBITS AT ST. LOUIS.

[Special Correspondence Manufacturers' Record.]

St. Louis, Mo., August 1.

In the Electricity Building at the World's Fair the exhibit of the Bullock Electric Manufacturing Co. occupies a conspicuous place, in keeping with the importance of the company and its ambition to become one of the very foremost institutions of its kind in the world. Since its absorption by the Allis-Chalmers Company of Milwaukee large plans have been formed for extending the scope and importance of this already well-established company, and the exhibit that is there made reveals the house as a leader in its line. Motors, generators, balancing sets, transformers, traction outfits, etc., are comprised in the big display, and the machines are shown not only in operation, but with the parts exposed, so as to show construction.

Among the motors are 10 of the Bullock type "B," designed and constructed to meet the demand for small motors which will successfully withstand hard usage. The claim is made that these motors embody every desirable feature. They are of neat design, well constructed, contain only the best of material and have form-wound armatures, hard-drawn commutator bars, carbon brushes with reaction brushholders, self-oiling and self-aligning bearings, sub-base and belt tighteners, and are well ventilated. They are built for both moderate and slow speeds. They are of the wholly enclosed or open type, and designed so that they may be operated on floors, side walls or ceilings. They are liberally proportioned, will carry heavy overloads and run cool and free from sparking. These machines are built in capacities from 1 to 35 horse-power and 1 to 25 kilowatts.

Types "N," "ND" and "NI" are manufactured to meet the requirements of a strictly high-grade motor where severe overloads and long runs at a low temperature are necessary. They are particularly adapted for machine-tool driving. This type of motor is used in connection with the Bullock multivoltage system and balancing sets and small direct-connected lighting units. They are built in both the open and wholly enclosed types, and to operate at 300, 600 and 900 R. P. M. The "ND" type is provided with back gearing. These motors are provided with laminated pole pieces, form-wound armatures, pure, hard-drawn copper commutator bars insulated with the best quality of selected mica, self-oiling, self-aligning bearings. They are built in sizes from one horse-power and up for all standard voltages and speeds.

In the exhibit of multivoltage balancing sets there are shown three machine tools equipped with the Bullock multivoltage three-wire system of variable speed motors. By this system motors may be operated up to 700 per cent. variation in speed forward and reverse, and with intermediate speeds. Machine tools operated by this system are always under the control of the operator, and may be run at the speeds best adapted for their work. This system embodies many features for which the claim is made that they are in advance of any other system, and the statement is made that it will increase the output of a tool from 20 per cent. to 40 per cent.

Another exhibit shows an "N" and "NI" multivoltage balancing set for operating machine-tool motors. By its use there can be furnished currents of 90, 160 or 250 volts, so that motors may be operated over a range of speed of 700 per cent., or even greater if necessary.

The 12-kilowatt type "B" lighting balancer is another machine shown. These sets are intended to take care of the un-

balanced load of the three-wire lighting circuit. They are automatic in their action, take up but little space, and require almost no attention.

In transformers there is the Bullock 250-kilowatt 2300 to 20,000-volt single-phase 60-cycle transformer. The company makes a specialty of the manufacture of high potential transformers in sizes from 50 kilowatts upward.

Two other exhibits show the 150-kilowatt Bullock oil-filled self-cooling transformer core and winding, one complete and one incomplete, showing the simplicity of construction, the neat design and the careful insulation of these transformers. Their regulation and efficiency, it is claimed, is excelled by none.

In generators there is an "AH" Bullock alternator, with parts removed to show construction; also the "IT" 200-kilowatt Bullock twin electric generator driven by a 300-horse-power De Laval steam turbine. These outfits are built in various capacities up to 200 kilowatts, for all standard voltages for both alternating and direct current. This apparatus may be seen in operation at the De Laval exhibit at the Mining Gulch.

Another exhibit is a De Laval centrifugal pump driven by Bullock 12-horse-power type "N" motor.

Nos. 23, 24 and 25 consist of Bullock "AH" belted-type 2300-volt 60-cycle three-phase alternators, with capacities of 50, 75 and 150 kilowatts. These machines are of the rotary field type, and are of the highest class alternating-current generators on the market, embodying all the latest features in alternating-current engineering. They can be operated at full load 24 hours a day with a rise in temperature not to exceed 35 degrees. Their efficiency and regulation is the highest of any machine on the market, according to the builder's claims.

In traction outfits there is a particularly complete display. There are three 150-kilowatt oil-filled self-cooled transformers, transforming from 6000 to 300 or 400 volts single-phase, 25-cycle.

A Bullock 500-kilowatt three-phase 25-cycle 500 R. P. M. rotary converter is shown of a type built in sizes from 100 to 1000 kilowatts.

There are two of the Bullock type "IR-50" 50-horse-power street-railway motors, shown mounted in car trucks, and these are soon to be shown running at a speed of 60 miles an hour. There is also a motor which is exhibited open to show the style of construction. These motors are marked by their large commutators, which are well ventilated, and by the superior design and construction of the armature and fields.

There are two Bullock 450 A street-car controllers. As the latest manufacturer to put on the market street-railway motors and controllers, this company claims to have the most perfect system yet developed.

No. 37 is an "AH" 225-kilowatt 2300-volt three-phase 60-cycle 600 R. P. M. alternating-current generator with direct-connected exciter, which is built in various sizes from 50 kilowatts up. The company also builds a line of engine-type alternating-current generators up to any practicable size. The 5000-horse-power Allis-Chalmers engine in Machinery Hall has direct-connected a generator of 3500 kilowatts capacity, three-phase, 25-cycle, 6000 volts.

A motor-generator outfit shows a 2300-volt three-phase 60-cycle 600 R. P. M. direct-connected 500 to 550-volt, 400 amperes, direct-current generator, with di-

rect-connected exciter. This is being used by the World's Fair Street Car Commission to make tests regarding the resistance offered to alternating currents by rails. "II-4" is a 75-kilowatt 230-volt 312-ampere 830 R. P. M. generator, and "III-4" is a 100-kilowatt 230-volt 416-ampere 650 R. P. M. generator, built in various capacities from seven and one-half kilowatts up, either belted or direct connected, and for all standard voltages.

Of induction motors there are various machines. No. 41 is an "AN" one-half horse-power 220-volt three-phase 60-cycle 1100 R. P. M. induction motor, built in all sizes. Machines up to 500 horse-power are furnished for prompt deliveries, and these machines are furnished for export.

Types "Y-1" and "Y-2" are controllers for three-wire multivoltage system.

"NI" is a 10-kilowatt 120-volt 83-ampere 500 R. P. M. generator, direct connected to a Reeves high-speed automatic compound engine, which is built in capacities from three kilowatts up.

Exhibit No. 45 is a testing table, equipped for making tests on any of the apparatus included in the exhibit. Representatives of the company are on hand to demonstrate the company's claims as to the efficiency and regulation of its apparatus and to make tests in the presence of intended purchasers.

#### Registering the Cash.

Four displays are made by the National Cash Register Co. of Dayton, Ohio, in as many different buildings, and in number, novelty, variety and size they surpass anything ever before attempted by the company at an exposition. The main exhibit is in the Liberal Arts Building, where it occupies a prominent place near the center of the building. The others are in the Electrical, Educational and Varied Industries buildings. The total floor space occupied by the various exhibits is 3700 square feet.

The main exhibit fronts 46 feet on the main aisle and 33 feet on each of the side aisles. The booth is in Ionic style. It is 25 feet in height, the tallest in the building, and is surmounted by a dome, from which rises a flagstaff capped by a gilded ball. From this staff, 35 feet from the building floor, flies the N. C. R. flag. The exterior woodwork of the booth is in old ivory finish. Its rich color scheme is enhanced by draperies of green silk with gold bullion fringe. The roof of the building is in red tile. The roof and dome are supported by four Ionic columns, the farthest only 12 feet from the rear wall, though a handsome semicircular canopy with apparently no support extends 16 feet out over the exhibit space. The ceiling is laid off in box-beam panels of oak of Mission finish, with panels of green burlap. The floor space is arranged in semicircular terraces. The stands are all of bronze, finished in verde antique. Three tons of bronze were required to make the stands used for the exhibits.

One hundred and ten transparencies are shown in this booth. Those in the outer row show unusual places where registers are used. Registers for foreign countries are in this exhibit. The transparencies in the stands on the second terrace show the wonderful growth of the business. Commencing with the old Coalton store, the development of the business is fully shown. The transparencies of the third terrace are devoted to the various departments in the factory and offices. A view of the factory from the Patterson homestead covers the rear wall of the booth. The picture is in oil, 28x6 feet in size, and it gives an excellent view of the plant, showing the boys' gardens and officers' club in the foreground and a general view of that part of Dayton lying to the northeast and west of the factory.

One of the chief features of the main exhibit is the two show windows constructed to show from all of the aisles. They are finished in harmony with the booth proper, and provided with green silk French curtains and velvet carpets. These show windows contain novel electrical and mechanical displays, such as are used in the company's show windows the country over, and have attracted much attention from visitors.

At each corner of the exhibit is an electrically-operated, up-to-date register. These go through the same operations that a clerk would in a store. Next to these machines, and extending around the sides of the exhibits, are registers which demonstrate the evolution of the cash-register business, from the old dial machine, manufactured 20 years ago, down to the present multiple cash register, which is the National Cash Register Co.'s latest model of mechanical perfection. Altogether a total of 110 cash registers are shown in this main booth.

To operate the mechanical displays of the main exhibit five horse-power of electricity is necessary. To light the booth requires 6014 watts of electricity, which is equal to 102 16-candle-power lamps. This is distributed in the booth through the medium of 8, 16, 25 and 50-candle-power lamps. The ceiling is studded with Nernst lamps, a light which is being satisfactorily used in the company's Berlin office, and which is being introduced into this country by the Westinghouse Nernst Lamp Co.

In the Electrical Building the exhibit is located immediately to the right of the main entrance, in block 4. Here are shown only electrically equipped cash registers. None of the machines to be seen here has ever been exhibited by the company before. Among the interesting things shown are the commercial, tablet and illuminated distant indications, also the electric checking system. The former are arranged on tables across the rear space of the booth, with the attachments and indications displayed on the rear and side walls, while the checking system is connected with a register on a stand at the center of the rear wall, with the check boxes located on a table at either end of the space.

The center of the floor space of this booth is occupied by two mechanical exhibits, one of which is a demonstration of the new distant indication. This is operated by a motor, and illustrates five different transactions, showing the entire working of the register, with a demonstration of the color system, and at the same time the illuminated distant indicators on the rear wall of the booth show exactly what the register is doing, although there is no visible connection between the two.

Another novel mechanical display to be seen at this booth is the life-size wax figure of a woman who operates a No. 79 machine. This register issues a check, on the back of which is reading matter referring to the main exhibit in the Liberal Arts Building. The movements of the figure are so lifelike that it is frequently taken for a live woman.

The transparencies in the stands of the electrical booth are especially selected to show the electrical equipment of the factory. There are pictures of the powerhouse, cable tunnels, switchboards and other interesting objects of the electrical equipment. The booth is lighted the same as the main booth.

In the Educational Building the exhibit is located to the right of the center entrance. In the center of this booth is a large and very handsome oak cabinet, containing a mechanical album which operates electrically, showing 80 pictures of the educational, social economy and welfare work. Only one picture is shown at

a time. The album is operated continuously. On the walls of the booth are three blackboards, similar in every way to those used in the factory, which contain photographs illustrative of the social economy, welfare work and educational features at the factory. Samples of the company's various publications are also shown, as well as a complete diagram and description of the organization; in fact, everything is shown at this booth that can in any way give visitors an idea of National Cash Register methods. This booth contains comfortable chairs for visitors. It is the same in architecture, decorative finish and lighting as the other booths of the company.

In the Varied Industries Building the company has an auditorium, which contains 1840 square feet. It is in the usual characteristic N. C. R. finish. Tablets on the outer walls show the purposes to which it is devoted. The interior is provided with seats and a platform. Here are shown motion pictures after the factory lecture has been given. The auditorium is provided with a special scheme of ventilation, whereby a continuous supply of fresh air is secured. The air is taken up at the bottom and freed at the top by a system of pumping and suction ducts, and the room is thus rendered comfortable for the people who attend each lecture in large numbers.

#### Clay-Working Machinery.

Conspicuous in the clay-working industrial section of the Mines and Metallurgy Building is the collective exhibit made by the American Clay Working Machinery Co. of Bucyrus, Ohio, which makes machinery for manufacturing all kinds of wares from clay, and whose exhibit represents manufactured wares from every part of the United States, sent here by users of the company's machinery. The exhibit proper of the company consists of a working model of some of the company's leading machinery, comprising a No. 42 brick machine, an automatic side-cut brick-cutting table, an Eagle repress, a bottom horizontal discharge fan and a model of a style B four-mold dry press. All are driven electrically, and may be seen in operation when desired.

The great variety of clay products which comprise the larger part of the exhibit are representative of so many different lines and come from so widely-separated places it is not doubted that clay workers will find this display unsurpassed in interest by any other exhibit of its kind. There is roofing tile sent by the Cincinnati Roofing Tile & Terra-Cotta Co., Cincinnati, and by the Atlanta Terra-Cotta Co., Atlanta. Hollow building blocks and conduits are shown by Ayer & McCarell, Brazil, Ind. Special blocks for grain elevator construction are from the Vigo Clay Co., Terre Haute, and hollow blocks and drain pipe from the Weaver Coal & Clay Co., Brazil, Ind. Fireproofing, flue lining and conduits are from the National Clay Manufacturing Co., South River, N. J., and hollow blocks from the Greer-Beatty Clay Co., Magnolia, Ohio, and the Pittsburg Terminal Clay Manufacturing Co., West Elizabeth, Ohio. There is dry press brick from Platt Bros. Brick Co., Van Meter, Iowa; the Chandler Press Brick Co., Chandler, O. T., and the Kittanning Clay Manufacturing Co., Kittanning, Pa., and enameled press brick from the Tiffany Enameled Brick Co., Momence, Ill. Paving brick and blocks are from the Barr Clay Co., Streator, Ill.; Trimble Clay Co., Trimble, Ohio; Wabash Clay Co., Veedsburg, Ind.; United States Penitentiary, Fort Leavenworth; Athens Paving Brick Co., Athens, Ohio, and the Townsend Brick & Construction Co., Zanesville, Ohio. Rock-faced paving brick is shown by the Purington Paving Brick Co., and

rock-faced building brick by the Alton Paving & Brick Co., Alton, Ill.

There are two skeleton sets of fine chinaware from the potteries of the Edwin M. Knowles China Co., East Liverpool, Ohio, and pottery and jardiniere are from the plant of A. H. Hawes & Co., North Cambridge, Mass. Sewer pipe and wall coping are from the National Clay Manufacturing Co., South River, N. J., and the Great Eastern Clay Manufacturing Co., New York. The Laclede Fire-Brick Co. of St. Louis has samples of its flue linings, fire-brick and paving brick, and the St. Louis Vitrified & Fire-Brick Co. shows fire and paving brick. Fine glazed sidewalk tile is from the Hocking Clay Co., Logan, Ohio, and enameled brick from the Sayre-Fisher Clay Co., Sayresville, N. J. Street curbing sidewalk tiles and paving brick are from the Moberly Brick, Tile & Earthenware Co., Moberly, Mo., and rock-faced building brick, paving brick and hollow blocks from the Iowa Brick Manufacturing Co., Des Moines, Iowa. Stoneware is from the Navarre Stoneware Co., Nevada, Ohio, and fireproofing from the Pennsylvania Clay Co., St. Mary's, Pa. Electric insulators are shown by the Akron Smoking Pipe Co., Mogadore, Ohio, and street-car track insulating blocks by the Standard Vitrified Conduit Co. of New York. Building brick have been sent by C. W. Wainwright all the way from Virden, Manitoba, and nearby are fire-brick from the American Fire-Clay Co. of St. Louis. Besides these numerous and varied articles, all made from machines of the American Clay Working Machinery Co., there are many samples shown made from clays sent to the company's testing department, which form a very instructive feature of the interesting exhibit.

#### Conveying by Gravity.

One of the simplest, cleverest and most useful inventions of this inventing age is the gravity conveyor for handling boxes, cases, crates, barrels, etc., in loading, unloading, packing, unpacking or shifting from place to place. This system is shown in operation at the exhibit of the Alvey-Ferguson Company of Louisville, Ky., in block 22, Machinery Hall.

The conveyor, as seen here, is an endless system installed around the border of a space 85x24 feet. In the endeavor to make the exhibit as complete as possible this company has brought into use all of the methods most generally employed in their installations.

The boxes, starting at the lowest point, about one foot from the floor, are carried to a height of 13½ feet by an endless chain elevator, of which the length over all is 30 feet. This elevator is operated by an electric motor, and is the only part of this system in which any power is required, for the boxes, on reaching the top, are carried the remaining distance of 230 feet by the force of gravity.

In this run the boxes first make a quarter-turn, and then traveling for a short distance strike a spiral, which is put in place for the purpose of illustrating the method of bringing the wares down from upper stories. This spiral brings them down two and one-quarter complete turns, with a fall of two feet to each full turn, and sends them off at right angles to the line on which they reach the spiral for a run of 70 feet to the far end of the space. Here they make a quarter-turn, followed by a straight section, and then another quarter-turn and a 35-foot straight run brings the boxes back to the starting point at the bottom of the elevator. Here the elevator, acting automatically, once more lifts them and starts them on their never-ending journey.

The advantages claimed for this conveyor over any other system are the extreme mechanical simplicity of its make-

up, which insures the user against troublesome and costly breakdowns; the facility with which corners may be turned or switches placed so as to reach any desired location, and the fact that no power is required except where it is necessary to take boxes to upper stories, in which case the elevator, requiring only a very nominal amount of power, and operating automatically so as to render rehandling at top or bottom unnecessary, comes into very good service.

The principle of the conveyor is that of the roller. A continuous series of rollers, spaced at from four to six inches from center to center, revolving easily on gun rod steel axles set in a steel frame, forms the basis for the patents, which are controlled both in this country and abroad by the manufacturing company. The patentee was Benjamin H. Alvey, now president of the Alvey-Ferguson Company, and the problem of making use in this clever manner of one of nature's simplest laws was solved about three years ago.

It may be useful to some interested in the handling of heavy boxes, machinery, etc., to know that this firm also manufactures a roller skid of the same principle, which is a very handy article for wholesale houses.

#### Making Rubber Goods.

The Voorhees Rubber Manufacturing Co. of Jersey City, N. J., has installed some machinery in miniature at the exhibit the company makes in Machinery Hall, and will manufacture rubber goods on the spot throughout the fair period. This practical exhibit, being educational and instructive, is proving of much interest not only to those who have never seen the process of manufacture, but to those familiar with the trade as well. The machinery consists of a mill to warm up stock for the tubing machine, a machine for making tubing, white and red; a press with a die for turning out an ink-well stand, which are given away as souvenirs, and a calendar for making hose covering. In addition to the working machinery, there is on exhibition a varied line of finished product, such as belting, packings, hose, matings, etc., all of the highest type, and giving an idea of the uses to which rubber is put in modern mechanical arts. To the mechanic and those who put these goods to practical use this will be a very interesting exhibit, and the layman will also find in it the charm of novelty. The management of the Voorhees Rubber Manufacturing Co. has had 30 years' experience in the manufacture of mechanical rubber goods designed for severe service, and the excellence of their products is well known throughout the country.

#### Testing Railway Equipment.

The World's Fair Street Railway Commission, appointed to make exhaustive tests of all kinds of street-railway equipment, has begun its preliminary tests. These tests are being conducted at the exhibit of the Bullock Electric Manufacturing Co. in section 15, Palace of Electricity, where the Bullock motor-generator set on exhibition is used for the purpose. This set is the only one on the fair grounds which would furnish frequencies of from 10 to 70 P. P. S. for test purposes. The tests which have been begun are to determine the resistance offered by rails to alternating currents. The preliminary tests are being made with material all within the Bullock section, but for the more elaborate tests wires are being run out to the car-testing tracks back of the Transportation Building.

#### A Rail Protector.

In the section of the Transportation Building which is devoted to switches, frogs and other rail devices there is a fine model of the Musgrove railway rail fast-

ener and rail protector, which has been patented by Mr. Robert G. Musgrove of Jackson, Miss. This device, which acts not only as a fastener, but as an inside and outside support to the rail, does away with the use of angle bars and fish plates, and will, it is declared, absolutely prevent spreading of rails or the crawling of rails. Built with great strength, it not only keeps the rails in place and at the proper distance apart, but it puts a stop to the clicking noise made every time a wheel passes over a joint. By its tracklaying may be done easier and faster. The fastener is particularly adapted to withstand the great strain imposed on the outer rail at a curve, and it also relieves the spikes of a great portion of that strain to which they are ordinarily subjected. As a device to prevent the recurrence of calamities due to spreading rails, the inventor makes the claim that this fastener should be adopted by all the railroads of the country, as it is the only satisfactory rail protector which he has found, and the only one which would make the track really safe for the passage of trains at a high rate of speed without danger of derailment by the spreading of rails. The inspection of his invention by the traveling public and by railroad officials and managers who visit the exposition is invited by Mr. Musgrove, in the conviction that familiarity with his device will demonstrate its great value and usefulness.

#### Machine Tools.

The B. F. Barnes Co., manufacturer of machine tools, upright drills and lathes, of Rockford, Ill., has a fine display of its well-known tools in Machinery Hall. Although a large space is occupied by the exhibit made, it is not attempted to show more than a sample line of the company's products, as to find room for all the sizes manufactured would take up vastly more space than it was possible to obtain. What are shown, however, give a very good idea of the company's operations. Some of the machines are in operation, including a six-spindle 14-inch manufacturers' gang drill and a four-spindle 20-inch self-operating gang drill. They are made with motor attached, framework bolted on separately. The company makes these machines in singles and up to six gang. They are also made in batteries, any distance apart, connected by a bar to hold them rigid. Oil-pump attachments go with all the drills, also quarter-turn countershafts. An auxiliary-spindle attachment is also provided, with two or more spindles, for drilling two or more holes at one time on one spindle, resulting in the saving of a great deal of time.

A new universal revolving automatic chuck is a feature of interest in this exhibit. It was built especially for use on the manufacturers' drills for drilling holes in single pieces or in any number of small separate pieces that can be set in a circular jig for holding them.

The company makes all kinds of upright drill presses, horizontal drill presses, etc., samples of which are in the exhibit. Small lathes for foot and steam power are also shown, and there is a water emery tool grinder which is declared to be the simplest and most efficient wet tool grinder on the market.

#### For Fire Fighting.

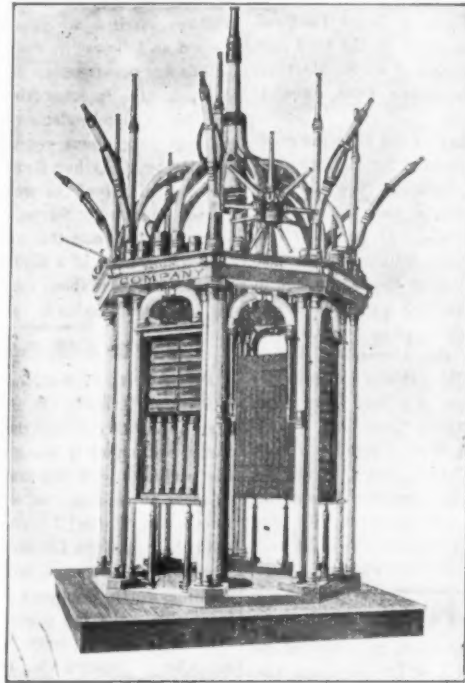
The exhibit made by the Eureka Fire Hose Co. of 13 Barclay street, New York, is very attractive, and will be studied with great interest by all who visit the machinery department. It is located in Machinery Hall, aisle A, section 28. The exhibit consists primarily of a series of handsomely polished oak cases seven feet high, mounted upon a raised platform of the same material 25 feet long and 12 feet deep. A flight of three steps leads up to a large central case, on top of which is a

square platform supported by a number of 30-inch underwriters' play pipes. On this platform is placed a large coil of the company's celebrated brands of fire hose, "Eureka," "Paragon" and "Red Cross," the whole surmounted by an immense golden eagle representing the widely-known Eureka trade-mark. The eagle measures six feet from tip to tip of the wings.

The entire height of the exhibit is 20

A feature of the exhibit is a tree 25 feet in height, the trunk and branches of which are covered entirely with Eureka hose, ranging from six-inch water-boat fire hose to one-half-inch garden hose.

Another part of the exhibit which will attract considerable attention is a huge spear shape standard 30 feet high, covered with hydraulic mining hose, rubber lined and unlined, arranged in sizes from 12 inches to 6 inches; also seven-inch to one-



EUREKA FIRE HOSE PAGODA.

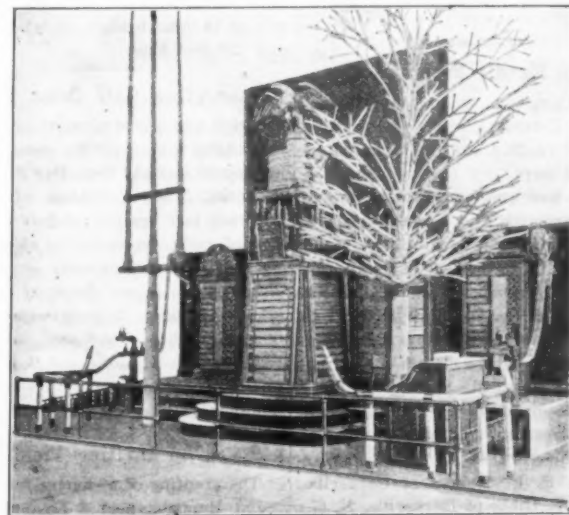
feet or more. The cases, five in number, are arranged to show all the various products manufactured by the Eureka Fire Hose Co. at its factory in Jersey City, and include a complete line of fire hose, mill hose, jacket hose, steam hose, refining hose, garden hose, etc.

On top of the three central cases is an assortment of brass work that is especially attractive, consisting of underwriter play pipes in the center of each, with play pipes of graduated sizes on either side.

half-inch linen hose and razor-strap fabrics, fire hose from six-inch water-boat fire hose to one-inch chemical engine hose, mill hose, hydraulic hose and electric covering.

This feature of the exhibit shows about 200 four-inch samples of fabrics manufactured at the Eureka plant.

Altogether the exhibit is a most instructive and creditable one, and even more attractive than the splendid showing made by the same company at the Paris and



EUREKA FIRE HOSE CO.'S EXHIBIT.

On top of one of the side cases are shown expanding rings from six inches to one inch diameter, and on another is an exhibit of spanners, wrenches, etc., all made of solid brass.

At one side of the platform is placed a most interesting assortment of couplings ranging from six inches to one inch diameter, and on the other side various other makes of couplings of two and one-half inches diameter manufactured by the company.

Buffalo expositions, at which it was awarded gold medals.

In connection with the fire-fighting exposition on the Pike, the Eureka Fire Hose Co. has a large and attractively designed pagoda, over 20 feet high. Four of the eight sides are utilized for doors or entrances, in the shape of arches formed with sections of Eureka hose, while the alternate arches are occupied by cases showing samples of Eureka fire hose and other products.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### Projects in Louisiana.

Preliminary surveys for the Gulf, Opelousas & Northern Railroads from Opelousas to Abbeville has been completed, showing an easy grade and a necessity for but few bridges.

Morgan's Louisiana & Texas Railroad has a party of engineers in the field preparing for an extension of its St. Martinsville branch in Louisiana from Arnaudville to Washington.

It is reported that by the time the right of way has been secured for the proposed electric railway between New Orleans and Bayou Barataria and the grading work begun the rails will have arrived, and that about half a million dollars will be expended in pushing the equipment of the road and establishing a pleasure resort on the bayou, 17 miles from New Orleans.

The charter of the Alexandria, Bayou Macon & Greenville Railway Co. provides for the construction of a road from Alexandria through Rapides Catahoula, Franklin, Richland and West Carroll parishes, Louisiana, and Chicot county, Arkansas, to a point nearly opposite Greenville, Miss. The road will be about 170 miles long, and it is expected that it will be built within the next year or two.

### Coal Mines and Railroad.

Mr. G. B. McCormack, president of the Townley Mining Co. of Birmingham, Ala., who, it was recently reported, had purchased, in connection with Mr. Erskine Ramsay, treasurer of the company, land in Walker county, writes the Manufacturers' Record as follows:

"I am interested in developing some coal land in Walker county, lately purchased in the name of the Townley Mining Co. A branch road about two miles long will be built to connect the mines, now being opened, with the Northern Alabama Railway, which is a part of the Southern Railway system. We shall probably build the line with our own forces, and will not require the services of any contractors or the furnishing of any equipment."

### To Handle Freight.

W. W. Chapman, general superintendent of the Estatoe Electric Co., writing from Boonford, N. C., to the Manufacturers' Record, says:

"We are now grading with the view to going to Burnsville, N. C., from Boonford, and also having a branch running from Micaville, N. C., to the head of South Tow river for the transportation of the National Graphite Co.'s output. It will be a standard-gauge road for the transportation of freight, and the officers of the company are Geo. D. Miles, president; E. F. Watson, vice-president; W. W. Chapman, secretary, treasurer and general superintendent; directors, G. D. Miles of Warsaw, Ind.; E. F. Watson of Burnsville, N. C.; R. P. Gibbs of Burnsville, N. C.; W. W. Chapman of Boonford, N. C."

It is reported that the capitalists interested in the construction of this line will confer with Asheville business men about extending the line 38 miles to Asheville.

### Dublin & McRae.

Mr. E. F. McRae of McRae, Ga., secretary of the McRae & Dublin Railway Co., which has applied for a charter, writes to the Manufacturers' Record as follows:

"We contemplate building the railroad to Dublin, a distance of 35 miles, traversing a fine farming section. Our object is

to connect at once with the Seaboard Air Line Railway, a distance of about one mile from here, and the contract for engineering will be let August 6, and for grading and other work for this portion of the road as soon as possible. After this one mile is completed the other part will be taken up."

### Building Extensive Yards.

Mr. M. L. Lynch of Tyler, Texas, chief engineer of the St. Louis Southwestern Railway, writes to the Manufacturers' Record as follows:

"We are constructing an extensive yard at Illmo, Mo., in connection with the Thebes Bridge, now under construction. The grading, now about completed, has been handled by McArthur Bros. upon contract, and the balance of the work is being done by our company's forces, the engineering being handled from this office. The buildings will consist of a modern brick round-house with turntables, coal chutes, cinder pit, etc., usual in such yards."

### New N. & W. Equipment.

President L. E. Johnson of the Norfolk & Western Railway Co. informs the Manufacturers' Record that the following additional equipment is being arranged for by the company with the companies named: 11 class W locomotives, with the Baldwin Locomotive Works; 7 class W locomotives, with the American Locomotive Co.; 6 baggage and express cars, with the Harlan & Hollingsworth Company; 6 baggage and mail cars, order not placed; 600 box cars, 80,000 pounds capacity, with the American Car & Foundry Co., Huntington; 200 hopper cars, 100,000 pounds capacity, at company shops, Roanoke, Va.

### Monroe Central.

Mr. E. C. Vincent, chief engineer of the Monroe Central Railroad, lately chartered in West Virginia, is reported as saying that the line will be from Ronceverte to Glenlyn, W. Va., 67 miles, and that a branch will be built 35 miles to Sweet Springs. There will be a grade with an average of 100 feet to the mile on 12 miles of the line, while the remaining 55 miles will have grades of less than 20 feet to the mile. One of the bridges will have eight spans, each 150 feet long, and there will be 14 other bridges, each between 100 and 150 feet long.

### Connecting Gulf Coast Towns.

A civil and electrical engineer of Boston is studying a plan for the construction of an electric railroad from Bay St. Louis to Scranton, Miss., a distance of 48 miles, and that fact has revived talk of connection of gulf-coast towns by electric lines, the connection ultimately extending to New Orleans in one direction and in another to Mobile. It is estimated that \$1,000,000 would be sufficient to build the road between Scranton and Bay St. Louis and put it into operation within 18 months.

### An Inviting Field.

The granting of a charter for the Richmond, Rappahannock & Eastern Railroad has revived expectations of close railroad connection between Richmond and the Northern Neck of Virginia. It is reported that work is to begin on a part of the line between Urbanna, on the Rappahannock river, and Walkerton in the early fall, and that 18 acres of land in Urbanna have been secured for a terminus. The undertaking is said to be backed by New York capital.

### May Combine Properties.

It is reported that a majority of the bondholders of the Queen Anne's Railroad have signed an agreement assenting to a

proposition to combine the property with that of the Weems Steamboat Co., provided the stock of the latter can be bought satisfactorily. It is understood that the Pennsylvania Railroad is behind the deal, and if it goes through may consolidate both the properties with the Baltimore, Chesapeake & Atlantic Railway.

### To Lay Heavier Rails.

Mr. W. W. Gwathmey, Jr., of Portsmouth, Va., chief engineer of the Seaboard Air Line Railway, informs the Manufacturers' Record that it is contemplated to improve the line between Durham and Henderson, N. C., by laying heavier rails, but that details of the improvement cannot yet be given.

### Over the Florida Keys.

It is reported that work is to begin at once upon the extension of the Florida East Coast Railway from its present terminus, about 28 miles below Miami, to Key West, a distance of 137 miles. The construction of this extension will be over the Florida Keys, requiring 40 miles of trestles.

### To Develop Mineral Interests.

To develop mining interests in Benton county, Missouri, application has been made for incorporation in the District of Columbia of a company with General Nelson A. Miles, president, to build an electric line from Kansas City to Jefferson City, to Springfield and back to Kansas City.

### Railroad Notes.

Survey of a railroad is being made from Parsons, W. Va., to Rowlesburg.

It is expected that construction of the Overton County Railroad in Tennessee will begin about September 1.

A survey is under way for a proposed electric railroad to extend from Petersburg, Va., to Albemarle Sound, N. C.

The Nashville Car Service Association handled in the last fiscal year 306,886 cars, an increase over the preceding year of 50,866.

It is announced that within the coming year the Pennsylvania Railroad will build an immense freight transfer yard near Alexandria.

The North Carolina Corporation Commission in its annual report shows assessed valuation of railroads in the State of \$69,483,073.61.

For the extension of the Mt. Airy & Eastern Railway Co.'s line from Dan river to a point near Stuart, Va., the survey has been completed for about 10 miles.

It is expected that construction of the Kansas City, Oklahoma & Houston Railroad from Red river toward Honey Grove, Texas, will be started within a fortnight.

Work is under way upon a branch of the Preston Railroad Co. from the large mills of the company at Crellin, near Oakland, Md., to the headwaters of the Yough river.

Surveyors have made favorable reports upon the route for the proposed railroad between Pensacola, Fla., and Andalusia, which it is expected may ultimately give air-line connection with Atlanta.

It is reported that permission has been granted the Atlantic Coast Line to purchase and operate the Jacksonville & Southwestern Railway, running between Jacksonville and Newbury, Fla., and that the road may be extended to Tallahassee.

At a meeting last week at Roanoke of persons interested in the Virginia-North Carolina Electric Railway it was decided, as the road will cost more money than at first expected, to secure additional facts

about the probable cost of the rights of way.

The Southern Railway has established an agency in Cuba. Mr. J. L. Edwards is appointed general agent there, representing the passenger and freight departments of the company, with headquarters at Havana. Until October 1 his address will be Atlanta, Ga.

It is reported that the Southern Railway Co. will shortly commence to double-track between Citico, a suburban station of Chattanooga, Tenn., and Ooltewah Junction. Between those points are several side-tracks and switches, but increasing traffic requires double-tracking.

Mr. M. J. Ragley, secretary of the Timpson Northwestern Railway, Timpson, Texas, writes the Manufacturers' Record: "We have just contracted with the Grigsby Construction Co. to bring the grades on this line up to 1 per cent. There will be in all about 150,000 yards of earth to move."

The Tennessee Central Railroad Co., having furnished the city of Clarksville, Tenn., a guarantee bond for \$30,000 that the street work of the railroad through the city will be completed in 12 months, the mayor has issued to the railroad \$100,000 in Clarksville city bonds to pay the city's subscription to the capital stock of the railroad company.

The trackage agreement between the Kansas City, Memphis & Birmingham Railroad and the Illinois Central Railroad, by which the Frisco system, owner of the first-named road, is to enter New Orleans over the Yazoo & Mississippi Valley route and the Illinois Central is to enter Birmingham, was filed last week at Birmingham.

A circular from the office of Mr. Jeff. N. Miller, vice-president and general manager of the St. Louis, Brownsville & Mexico Railway at Kingsville, Texas, announces the appointment (effective August 1) of Mr. Wm. Doherty as general passenger and ticket agent of the company, in charge of passenger and immigration departments, with headquarters at Corpus Christi, Texas.

A cargo of 5000 head of sheep, mules, horses and burros left New Orleans last week for South Africa, the initial shipment by the new African-American Line, which will have monthly sailings between New Orleans and Cape Town.

The League of Georgia Municipalities will hold its annual session at Savannah August 10, 11 and 12. Mr. Bridges Smith of Macon is president of the association, and Mr. David J. Bailey of Griffin is secretary and treasurer.

The Argo Line for Bremen and the Anchor Line for Barcelona and Genoa will establish regular sailings from Savannah, Ga., September 1. Each line will have three ships of about 3000 tons net register.

Shipments of coal from the Birmingham district for the Mexican Railroad have been resumed through Pensacola, from 12 to 15 carloads a day arriving by the Louisville & Nashville Railroad.

The Independent Steamship Co. has been chartered to operate a line from Pensacola to Apalachicola, and thence up the Apalachicola and Chattahoochee rivers to Columbus, Ga.

During July 13,400 tons of Peace River phosphate rock were shipped through Punta Gorda, Fla.

It is announced that coal has been discovered at Spencer, O. T., at a depth of 700 feet.

## TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

### COTTON IN AFRICA.

#### The Time When Southern Mills Will Use the American Crop.

R. L. Moss & Co., cotton brokers, of Athens, Ga., have received a number of letters from foreign correspondents acknowledging and showing interest in "The South's Supremacy in Cotton Growing," recently published by the Manufacturers' Record. The firm kindly sends to the Manufacturers' Record a letter from J. Van Sommer of Liverpool, who is in the cotton business there, which contains the following, dated July 14: "I duly received the publication 'The South's Supremacy in Cotton Growing,' and it interested several of my friends. I enclose a cutting from one of our daily papers to show you we are getting ready for the time when your mills will take all your cotton. The 'contraries' still seem in full force. With a stock of cotton on hand quite limited, the spinners bought the largest quantity on any day of the season yesterday."

The clipping contains an interview with J. T. Neely, formerly of Jackson, Miss., and now expert for the British Cotton Growing Association, telling of his observations as to the prospects for cotton growing in West Africa. He expressed himself that though it would take a long time, Lancashire will have in West Africa an alternative supply at least sufficient almost to meet all her requirements, if not to make her entirely independent of the States. He said:

"I have been farming 1000 acres of land, but there are thousands and thousands, aye, millions and millions of acres of land in the Sierra Leone protectorate alone fit to grow cotton and capable of growing cotton, after a little more cultivation, quite equal to middling American, and just as easy to deal with by the existing machinery in your mills. The staple is about one and one-third inches.

"The country grows cotton naturally. Little or no cultivation is required. You make a few holes in the ground, put in the seed, and the cotton sprouts to a height that I have never seen equaled at home. I saw native cotton a year old in Sierra Leone 11 feet high, with 235 bolls to the stalk. Not a plow had been used to the land.

"On my own estate at Moyamba the cotton, though sown only last May, is about two feet six inches for 500 or 600 acres. We cannot get cotton in the States to grow higher than two feet 10 inches without much cultivation."

He added that any amount of native labor could be gotten for sixpence a day, and that ginning machinery was needed.

#### To Manufacture Canvas Stitched Belts.

Southern cotton manufacturers are constantly on the lookout to introduce new products, and their mills are continually being enlarged or improved, as is seen by the announcements presented from time to time in the Manufacturers' Record. Apropos of this it will be of considerable interest to note that the Piedmont Cotton Mills of Egan, Ga., has installed an equipment of modern machinery for manufacturing canvas stitched belts. The company has

heretofore been manufacturing wide cotton duck. It is stated that the Piedmont plant is the first one south of Baltimore to engage in this class of product. It takes the raw cotton and carries it through every process up to the completed belt ready for power-users.

#### Changing to Weave Mill.

Reference was made last week to the Carolina Mills of Greenville, S. C., as calling a meeting of stockholders for August 16 to vote on increasing capital from \$50,000 to \$100,000. The company's stockholders have definitely decided on the increase, and the new shares will be issued as preferred. The company will change its mill to a weaving plant for the production of print cloths, the equipment to be 6000 spinning spindles and 160 looms. The purchasing of the necessary machinery is now in progress. J. E. Sirrine of Greenville is the engineer in charge.

#### Information Wanted on Woolen Industry.

There is a movement on foot at Christiansburg, Va., for the establishment of a woolen mill in that city, and information regarding the woolen industry is wanted by the projectors. C. W. Sumter and associates are furthering the movement. They invite makers of woolen-mill machinery to send them prices on equipments, data as to the water supply required and other particulars.

#### Textile Notes.

Knoxville (Tenn.) Woolen Mills has increased its capital stock from \$600,000 to \$750,000, but no enlargements of the plant are contemplated.

The Martin Hosiery Mills of Raleigh, N. C., has awarded contract for 30 additional knitting machines, which will be installed on the second floor of the company's 40x90-foot building.

It is reported that New York and Chicago capitalists will establish at Bessemer City, N. C., a plant for the manufacturing of fine fabrics, an equipment of Jacquard looms to be installed for the purpose.

Messrs. M. D. Moore and Leon Schwald of Cole Camp, Mo., and Frank Hugelman of California, Mo., have purchased the Sedalia Woolen Mills at Sedalia, Mo., and organized the Queen City Manufacturing Co. to operate the plant.

It is proposed to organize a company with capital stock of \$150,000 for the purpose of building a cotton factory at Marion, S. C. No definite arrangements have as yet been made. Henry Mullins is interested in the enterprise.

The Business Men's Association of Annapolis, Md., is conferring with the Amherst Knitting Co., Jasper and Clearfield streets, Philadelphia, Pa., regarding the establishment of a branch mill by the company. The company operates 91 machines in its Philadelphia plant.

It is stated that Messrs. G. Gunby Jordan and Curtis Jordan of the Eagle & Phenix Mills, Columbus, Ga., will be interested with John T. Abney of Laurens, S. C., who was mentioned last week as having secured the necessary capital to build a 10,000 or 20,000-spindle cotton mill at Columbus.

The Elk Mountain Cotton Mill Co. of Asheville, N. C., has elected officers as follows: Messrs. T. S. Morrison, R. S. Howland, D. G. Devenish, Charles A. Webb, Frank Lougran, Gay Green and Erwin Sluder. This is the company reported at some length last week as incorporated, with \$150,000 capital, to establish damask mill, etc.

Reference was made recently to a report that J. F. Hanson, president of the Bibb

Manufacturing Co. of Macon, Ga., is negotiating for a site for another cotton mill at Columbus, Ga. It is now further stated that Mr. Bibb and his associates have concluded the purchase of the site referred to, containing 60 acres of land, and will invest \$1,000,000 to build and equip a plant for manufacturing high-grade cotton goods exclusively.

Dispatches from El Paso, Texas, state that a silk factory will be established in the Southwest, probably at El Paso, by the Lyons Silk Factory of Lyons, France. It is stated that Professor Carrara of El Paso, now in Amsterdam, Holland, has advised correspondents in El Paso that President Calvac of the Lyons Silk Factory has said it is definitely decided to build the plant in the Southwest instead of in Mexico, where it was at first proposed to locate. According to the report, 5,000,000 francs have been subscribed to be invested in the American plant.

The Crow Hosiery Mill Co. of Monroe, N. C., reported incorporated last month with \$25,000 capital, for the purpose of establishing plant, has organized with R. A. Morrow, president; J. M. Belk, vice-president; J. J. Crow, secretary-treasurer, and H. E. Wilson, superintendent. Messrs. Crow, Morrow, Wilson & Belk, G. S. Lee, W. S. Lee, T. J. Gordon, D. A. Houston and R. B. Redwine are the incorporators. Plans for building show a one-story brick structure 40x180 feet, to contain knitting machinery for daily output of 200 dozen pairs of hosiery, as previously stated.

#### Cheap and Rich Southern Lands.

[Special Cor. Manufacturers' Record.]  
Vicksburg, Miss., July 26.

I met here a gentleman from Ohio who has come South to live, and he told me that he had tried in vain to tell his friends in his home State that they could buy land in Southern States for one-tenth of what their own real estate holdings would bring on the market. He said they simply would not believe what he told them of the cheap and rich lands in the South. A gentleman from Illinois the other day told me practically the same thing. I had the pleasure of riding today on the Alabama & Vicksburg division of the New Orleans & Northeastern Railroad, a part of the Queen & Crescent system. I have never witnessed a more attractive country from an agricultural standpoint. The conductor informed me that we were passing through a section to which the name of "Magnolia Soil" had been given for the reason that it grew an incomparable specimen of magnolia trees and blossoms. With an eye to business, however, I lost sight of the magnolia groves in the attractiveness of the corn and cotton fields. As far as the eye could reach not a barren or uncultivated spot could be seen, but everywhere was promise of productiveness and fruit in the autumn from man's industry. From the time I left Jackson till I reached Vicksburg I have never seen a more beautiful or inviting country. I am surprised that the New Orleans & Northeastern Railroad, headed by Mr. C. C. Harvey, one of the best business men in the country, has never thought of going into the Northwest, where lands are high, climate unfavorable and many other disadvantages, as compared with the South, and inviting a few thousand people to take a trip over its line between Jackson and Vicksburg. It is easily done, and, in my opinion, would be of great advantage to the railroad, the State of Mississippi, the South and the people whom they would interest.

LEE J. LANGLEY.

A smelter company of Joplin, Mo., has made a contract to furnish to the Japanese government for immediate delivery 1000 tons of spelter.

## FOREIGN TRADE

### Trade in the Levant.

J. M. Schapira of Athens, Greece, who represents German factories in the hardware and cutlery lines in the Levant, writes to the Manufacturers' Record that he is endeavoring to open up trade there for American firms. He writes:

"I have been traveling in the Levant for nearly 15 years, and I do not hesitate to say that for an agent who knows how to choose his people the Levant can boast of as honest merchants as one finds in other European centers. If American firms would only have the courage to facilitate as much as possible business relations with these countries we could have the best success. There is a good trade to be done for hundreds of American firms. I know American factories with their new and perfected machinery and practical business principles could trade under better conditions than European manufacturers. Among the articles which are of interest in these markets are ironmongery, hardware, machinery, leather, oilcloths, ropes, cutlery and tools, beside iron and steel in bars, plates, tubes and angles, galvanized plates, window glass, pumps and agricultural machinery. In all of these lines I know American firms can compete and do a large trade; only the ice must be broken and a beginning must be made."

### Wants an Illustrated World's Fair Magazine.

Ferrero Bucarest of Bucarest, Roumania, writes as follows to the Manufacturers' Record:

"We receive your always interesting paper regularly. We read in it part descriptions of the exhibits of St. Louis, and assure you that we feel the necessity to know more. So we take the liberty to make you a request. Would you kindly subscribe us to the best published illustrated periodical on the St. Louis Exhibition. You would, indeed, greatly oblige us. We beg to enclose five dollars, and will send the balance difference as soon as we know the cost of subscription to said illustrated journal."

### For Ironworking Machinery.

A. M. Cristoffanini, No. 18 via Garibaldi, Genoa, Italy, writes to the Manufacturers' Record expressing a desire to obtain the lowest possible quotations on machinery, a list of which is published in the Construction Department of this issue. The machinery is for a new establishment in ironworking.

A. Rusconi & Co. of Milan, Italy, write to the Manufacturers' Record that they are looking for a machine to make steel rings for spinning and twisting.

### Grain at New Orleans.

The Harris-Scotten Company, which controls a large part of the grain shipments over the Santa Fe, Burlington, Illinois Central, Rock Island and Frisco systems, has leased from the Illinois Central its Elevator D at Stuyvesant Docks, New Orleans, and expects to ship through that port 1,200,000,000 bushels of grain.

### Gulfport's Growing Importance.

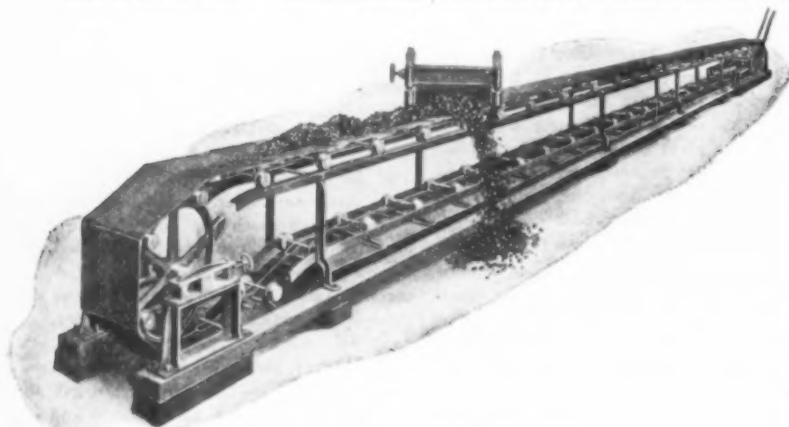
By recent action of the freight traffic associations in Mississippi valley territory, due to the growing importance of Gulfport as a distributing center, this city has been placed on an equality with New Orleans and Mobile in rates from all points north of the Ohio river on wheat, corn, oats, hay and packing-house products.

The Mexican-American Steamship Co. has announced that Port Arthur will be an additional shipping port of the Galveston-Tampico line.

## MECHANICAL

### Triumph Steel Belt Conveyor.

An accompanying illustration shows the patented Triumph Steel Belt Conveyor, designed to take the place of rubber or Gandy belt conveyors, being more substantial and durable. It is made entirely of iron and steel, of almost any size and almost any length desired, requires very little power to drive it, and is especially



TRIUMPH STEEL BELT CONVEYOR.

adapted for conveying large quantities of ore, coal, crushed stone, clay, marl, castings and all kinds of similar materials. As an ore or coal-sorting table it is superior, on account of its slow speed, large capacity and durability. The material can be discharged at any place by the discharge plow, or it can discharge at the end.

It is constructed of one strand of special chain 24-inch pitch, with a working strain of more than 10,000 pounds, fastened together with special steel pins with self-oiling rollers at each end which run on a steel track, usually supported on cast-iron stands, although wood supports can be substituted if desired. There is a steel sprocket wheel at each end securely fastened to steel shafts. At the front end are heavy stands with take-up boxes. The drive end has steel countershaft with heavy gears and drive pulley. On each link is fastened a special saddle attachment for supporting the steel belt, which is made in sections 24 inches long and wide enough to give the required capacity, and all bent in a concave or troughing form (it can be straight if desired), one end being securely fastened to the special saddle attachment, the other end so fastened as to move forward and back, allowing it to pass around the sprockets at the end, these pieces of steel thus forming a continuous steel belt or troughing conveyor. The C. O. Bartlett & Snow Co. of Cleveland, Ohio, builds this conveyor.

### The Sturtevant Fuel Economizer.

The two most essential qualities of a fuel economizer are its ability to utilize most efficiently for heating water a maximum amount of heat (otherwise wasted) from the escaping gases, and the accessibility of all surfaces for cleaning, repairing and renewals. The Sturtevant "Standard" and "Pony" type economizers were designed to make possible these two requisites. These economizers utilize practically all the waste heat from the gases by a patent system of staggered pipes. This system compels all the hot gases to enter the pipes, increasing the effective heating surface to a maximum. The gases are thus broken up and forced to give up their heat to the surrounding surfaces.

A fuel economizer must be accessible both inside and outside if it is to be a valuable adjunct to a power plant. To make this possible the joints of the Sturtevant Economizer are made taper metal to metal, and are so designed that any pipe

can be taken out and a duplicate substituted without disturbing any other pipe, section or side walls. This would not be possible if packing, cement or rusting were used to make tight joints.

Any header can be withdrawn and a duplicate substituted without disturbing any other header, section or side walls. Any section can be withdrawn and a duplicate replaced without disturbing any other section or side walls. There are no connection pipes to remove, and all water

are so constructed that the parts themselves contain the rigidity that would otherwise be required in the foundations. The fact that taper metal to metal joints are used also eliminates the necessity of building more rigid foundations, as there are no gaskets to loosen and leak if the foundations spring slightly.

to 350 pounds pressure before leaving the works and guaranteed to be sound and tight. All parts are machined to special gauges and kept in stock, so that duplicates can be furnished without delay.

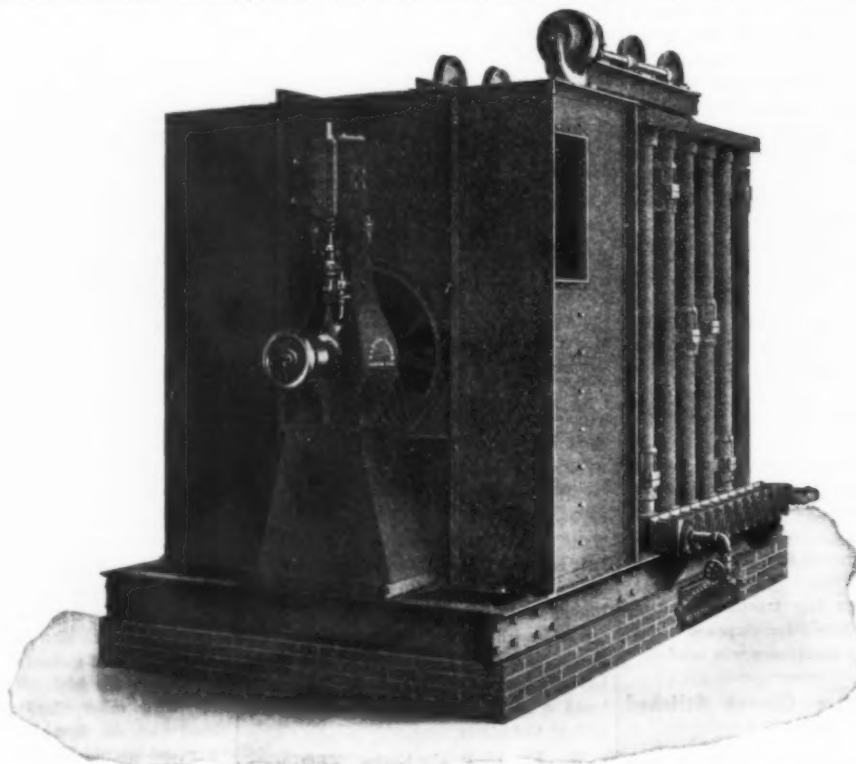
The several installations of the Sturtevant Economizers have proven highly efficient. Not only has it been proved that



THE STURTEVANT STANDARD ECONOMIZER.

Two general types of economizers are made by the B. F. Sturtevant Co., the "Standard" and "Pony." The "Standard" is built in sections containing pipes from four to twelve wide, the staggered system of pipes making it possible to build sections of an odd as well as an even number of pipes. The "Standard Economizer" is adaptable to power plants of almost any

the gases are reduced to a remarkably low temperature with a comparatively small amount of heating surface, but the water has also been heated to an exceptionally high temperature. In cases where the feed water contains foreign substances the owners have found these machines to be especially valuable, owing to their accessibility and ease of cleaning. These econo-



SPECIAL ARRANGEMENT OF STURTEVANT PONY ECONOMIZER WITH MECHANICAL DRAFT APPARATUS.

connections are made in such a way that the flow of water is started in the right direction and tends to keep the flow up and down the consecutive sections without making undue work for the pump.

The foundations required for these economizers are comparatively simple. This is due to the fact that the machines

size, but is more commonly used for boiler capacities of 350 horse-power and over.

The "Pony" type, as its name implies, is smaller than the "Standard," and is more adaptable to power plants of 350 horse-power or less.

All machines are made of the best cast iron for the purpose. All parts are tested

mizers are manufactured by the B. F. Sturtevant Co. of Hyde Park, Mass.

### The American Elevator.

A view is presented herewith of the latest design and improvements of the American Direct-Connected Electric Elevator Machine. This machine's compact

and substantial construction will at a glance appear to the practical engineer and those experienced in use of elevator machinery.

The inner bearing of the drum is six inches diameter, about twice the size ordinarily used, thus giving strength at a point where most needed.

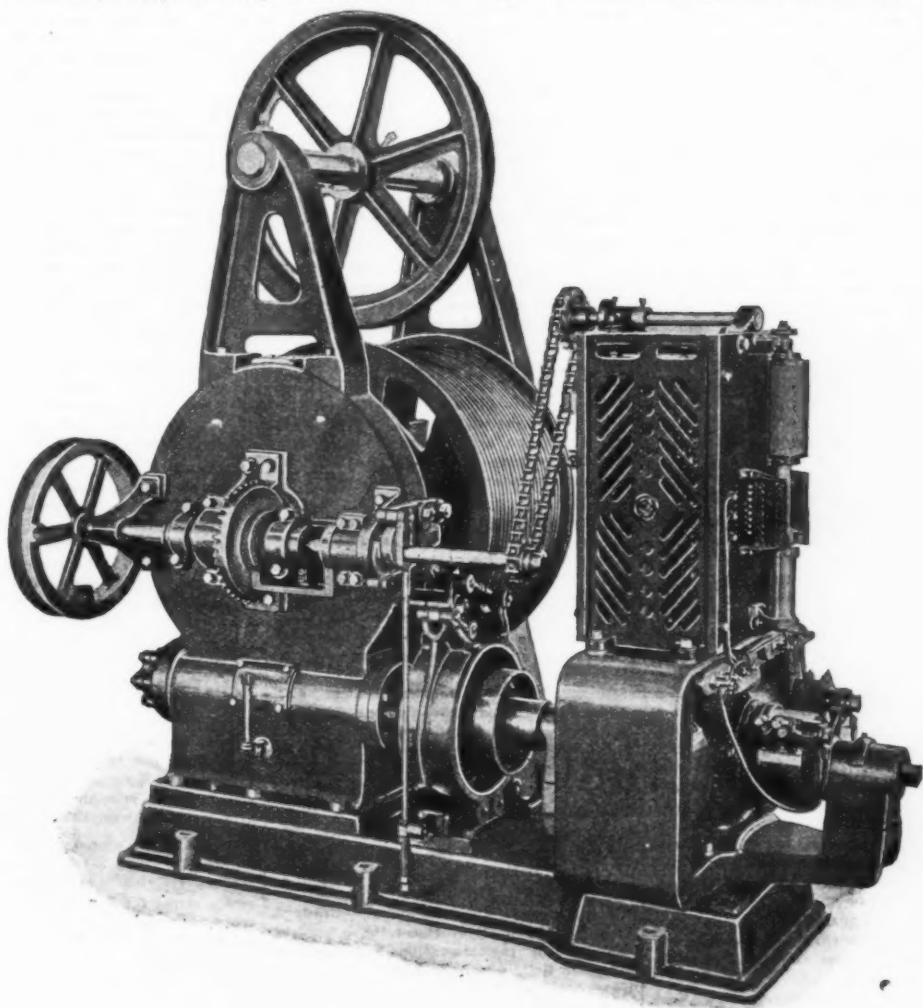
The brake (which is a most important part of an elevator), on which patent has been applied for, has been conceded by all who have used and seen it to be one of the best, safest and most reliable on the market. The brake shoe, while being applied to brake wheel, is at the lowest point raised automatically, which gives an equal bearing entirely around brake wheel, which makes it unnecessary to apply the brake with as much force as the old style, the bearing obtained on brake wheel being about twice as much as old style; consequently, only about half the force is required. Thus an easy and positive stop

tors, the motor being slow speed, thus reducing wear to a minimum, especial attention having been given in construction to reduce consumption of current in operating and have a motor that the cost of running will be economical.

These machines are built in two sizes, one for a speed up to 200 feet per minute, the other for 200 feet up to 400 feet per minute.

The American Machine Co., 500-530 E. Main street, Louisville, Ky., manufactures this direct-connected electric passenger and freight elevator.

Levees, outlets and reservoirs as a means for protection against overflow of the alluvial lands of the Mississippi valley were discussed by Mr. Robert S. Taylor of Indiana before the American Association for the Advancement of Science at its last meeting. Mr. Taylor, who is a member of the Mississippi river commis-



DIRECT-CONNECTED ELECTRIC PASSENGER AND FREIGHT ELEVATOR, BUILT BY THE AMERICAN MACHINE CO. OF LOUISVILLE, KY.

of car or cage is secured, no jar being perceptible, and it acts positive with heavy and light load.

To provide for an emergency this brake device is so constructed that on failure of brake being applied hard enough by movement of cam, when car or cab is to stop at upper and lower landings, there is applied a second cam, which, when it comes into action, gives a pressure on brake about four times as great as the first cam; thus there is no possibility of car or cab passing beyond terminal landings, which has very frequently happened to others, causing serious and costly damages.

The slack-cable device will act immediately and cut off current and stop machinery when cable gets slack, even only several inches. This device is a long-felt want by all elevator users.

The motor and controller are designed and constructed for especial use on eleva-

sion, took the ground in his paper, which has been published in pamphlet form, that the present levee system has been so thoroughly tested, has been of such incalculable value, and is so near completion that it is a sort of treason to turn aside to talk about anything else for any other purpose than to illustrate by contrast the transcendent importance of finishing up what is in hand. He contends that in a sense the levees never will be finished, but they can be extended, raised and strengthened until they will hold the water even in such floods as in the spring of 1903, and that then they will be finished in the only sense in which it will ever be possible to apply that word to them.

New Orleans' plants have contracts for sugar machinery to be installed in Mexico, Porto Rico and Cuba. The Whitney Iron Works Co. and the Eastwick Engineering Co. have received some of the orders.

## LUMBER

### To Make Bobbins and Shuttles.

Mr. T. L. Bellingrath, general manager of the Talladega (Ala.) Light and Water Commission, writes to the Manufacturers' Record as follows:

"I am seeking information concerning shuttles and bobbins for cotton mills, and also oak strips used in trunk manufacturing. We have considerable hardwood here, and I thought possibly such a business might pay; so any information you can give me on the subject will be appreciated. The idea I have is to put up a small plant for getting out the stock for shuttles and bobbins, which I understand are made from dogwood and persimmon wood and simply squared in small blocks of various sizes. I understand that there is quite a demand for this stock, both domestic and foreign. The trunk strip could, I think,

mentioned, and by a combination develop a good business proposition."

### Timber of Arkansas.

Discussing timber resources of Arkansas, F. Zangerl of Pine Bluff writes to the Virginia Press of Roanoke: "Pine is found generally on the hills and uplands all over the State. Yellow pine is the most sought after timber, being used mostly for building purposes. Oak, with its different species, such as white, post, overcup, red, burr, pin or willow oak, is found very extensively on all sorts of soils not too wet, and is in demand for many purposes—building, staves, ties, trestle-work, etc. Hickory is another valuable timber, being manufactured into wagon spokes, handles, farming tools, etc. In the eastern and southeastern section of the State the most and the best hickory is found, also pecan and walnut; the latter is getting very scarce, being the most valuable of timber. Gum, forming a large and tall tree, is found in large quantities, also mostly in the eastern and southeastern counties, and is extensively used. The majestic cypress is only found on lakes and along rivers. Those trees growing very tall afford a large percentage of merchantable logs, and it is not uncommon to find such lakes containing 10,000 to 20,000 feet of merchantable timber per acre. Other varieties of trees, such as cottonwood, sycamore, beach, sassafras, holly, etc., are also very valuable, but generally occur only on favored spots or in groves. I will not speak of the smaller growth of trees, such as dogwood, chinquapin (a sort of wild chestnut), willow, birch, persimmon, etc., as they are not found in large quantities, but nevertheless are valuable, and could be used to advantage for certain purposes."

### Milling at Marion.

A Cumberland (Md.) firm has bought the timber on 36,000 acres of land in Smyth and Grayson counties, Virginia, paying for it \$275,000. The purchasers are reported as looking for a site for a mill in Marion. Already the Grayson Lumber Co. is erecting at Marion a large band-saw mill, and expects to cut 20,000,000 feet a year.

### Wants Prices on Lumber.

The Bicknell Hardware Co., Janesville, Wis., writes the Manufacturers' Record that it wants prices to jobbers on all grades of cypress, Southern pine and box bottoms, oak and hickory lumber.

### Lumber Notes.

The Camp Manufacturing Co. of Portsmouth, Va., is preparing to cut 40,000 acres of timber land owned by it in the Dismal Swamp.

Miles Carpenter will build a lumber mill with daily capacity of 40,000 feet at Brasier, Texas, on the Beaumont, Sour Lake & Western Railroad.

The Turpentine Operators' Association will meet in Jacksonville, Fla., September 10. It is stated that the meeting will show an increase of production during this year.

One day last week Savannah, Ga., shipped on a British steamship 2,125,701 feet of yellow pine consigned to the Canadian Pacific Railroad. This is part of an order for 4,000,000 feet which the railroad will use in building cars.

It is reported that Mr. Walter Langford of Fort Myers, Fla., who is backed by Chicago, Providence, Philadelphia and New York capitalists, will build at Deep Lake, Fla., a cypress mill with a capacity of 100,000 feet a day, and will have 2,500,000,000 feet of timber in sight. The Deep Lake Railroad will be pushed rapidly to aid in the development of the tract.

be very nicely worked along with the other. I would like to have such information as you can give me about both of these articles, where the best markets are to be found for each, if it is true that they find a ready sale at a profit price, and what the price is per 100 or 1000. If you can, would like for you to give me the address of two or three parties who handle bobbins or use trunk strips. Would like to have your opinion of the possible success or failure of such a plant in this part of the country, and about, approximately, what a small plant necessary to produce these articles in paying quantities would require in way of equipment and capital. In short, the entire subject is new to me. My notice was drawn to it some time ago, and I am seeking such information as will enable me to consider it intelligently. So any and all information will be appreciated. You might suggest other things that could be made also along with those

# Construction Department

## TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state as "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

### ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

### WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

## BALTIMORE BUILDING NOTES.

### Business Buildings.

**Baltimore—Business Building.**—William Ferguson & Bro., 214 Clay street; Thomas L. Jones & Son, 410 West Saratoga street; Edward Brady & Son, 915 Park avenue; J. Henry Miller, 110 Dover street, and D. W. & G. H. Thomas, 419 North Charles street, are preparing bids on the building to be erected at 15 East Lombard street by the Safe Deposit & Trust Co. for the Richard M. Pleasant estate; bids to be in August 12. This building previously mentioned.

**Baltimore—School Building.**—In accordance with an ordinance approved by the city council, architects engaged in their profession in Baltimore are invited to submit plans and specifications for a building to be erected for the Eastern Female High School. Plat of lot, data as to requirements in building and specifications, etc., can be had on application to the Inspector of Buildings, office in the City Hall. Notice of intention to submit drawings must be given the Inspector by 12 M. on July 30. All plans and papers must be delivered at the Mayor's office by 12 M. on August 31.

**Baltimore—Hotel.**—It is announced that the Merchants' Hotel Co., recently reported incorporated, etc., will soon complete financial arrangements ensuring the erection of the proposed hotel, which is to be a seven-story structure, containing about 170 rooms. Clarence H. Forrest is secretary of the company; offices at 315 North Charles street.

**Baltimore—Store Building.**—Messrs. James Stewart & Co., 319 North Charles street; Henry Smith & Sons Co., 120 South Register street; Morrow Bros., 212 Clay street; J. Henry Miller, 110 Dover street, and Andrew J. Robinson are preparing to submit bids for the erection of the store building to be erected at the southwest corner of Hanover and Baltimore streets by the Wm. Keyser estate, R. Brent Keyser, trustee, 14 West Mt. Vernon Place. The building will be five stories high, 24.6x60 feet; concrete foundation; iron beams; tin roofing; cast-iron col-

umns; brick; terra-cotta; electric wiring and fixtures; gas fixtures; sanitary plumbing; steam-heating equipment; metal ceilings; metal frames and sash; elevators; fire-escape, etc. Plans and specifications for the structure were prepared by Messrs. Sperry, York & Sawyer, architects, Builders' Exchange Building, Charles and Lexington streets.

**Baltimore—Warehouse.**—Cramp & Co., 407 St. Paul street, are among the bidders for the erection of the warehouse for the Janney heirs, S. S. Janney, trustee, 204 North Calvert street, to be located at 120 East Pratt street, after plans and specifications by Archer & Allen, architects, Central Savings Bank Building, 3 East Lexington street. Structure to be four stories high, 42x32 feet; brick with stone trimmings; concrete foundations on piling; steel beams; cast-iron columns; slag roofing; galvanized-iron cornice and skylight; electric wiring and fixtures; sanitary plumbing; elevator. Electric wiring and fixtures and elevator not included in contract. Plans are now in the hands of builders, and bids are to be in August 2. This building mentioned last week.

**Baltimore—Office Building.**—Isaac Lobe Staus, 194 East Lexington street; John Glenn & Co., 312 St. Paul street, and Thomas R. Bond have completed arrangements securing the required capital for the erection of an office building, an enterprise which they have been promoting several weeks. New York capital will furnish 75 per cent, and Baltimore capital 25 per cent, of the money required. Structure to be 14 stories high; granite front to third floor; ornamental-face brick to twelfth floor; upper three floors of terra-cotta; fireproof vaults, lined with steel plate, in each office room; 375 rooms for offices; elevators; steam-heating equipment; sanitary plumbing; fireproof construction throughout; cost of site and structure to be about \$300,000; location of site not announced yet. Messrs. Hoyt & Mackintosh, architects, 11 Pleasant street, are preparing the plans and specifications.

**Baltimore—Office Building.**—Plans were distributed July 29 to the contractors who are invited to bid on the construction of the office building to be built at Baltimore, North and Fayette streets, by the Maryland Casualty Co., now at 635 St. Paul street. The contractors referred to are Messrs. J. Henry Miller, 110 Dover street; E. D. Preston, 22 Builders' Exchange, Charles and Lexington streets and 113 Clay street; John Stack & Sons, 250 West Preston street; John Hiltz & Sons, 3 Clay street; William Miller & Sons, 345 North Charles street; James Stewart & Co., 319 North Charles street; Murphy Construction Co., 202 West Fayette street; Wells Bros. & Co., 344 North Charles street; John Gill & Sons, 11 East Saratoga street, and the A. J. Robinson Company, Cathedral and Franklin streets. Bids are to be submitted by August 10. Messrs. Parker & Thomas, 612 North Calvert street, are the architects who prepared the plans and specifications. The building will be three stories high, second and third floors for exclusive use of the Maryland Casualty Co.

**Baltimore—Office Building.**—A New York life insurance company has purchased the site at 35 and 37 South street, size 87.6x41 feet, and will erect thereon an office building of modern construction three stories high. Charles Morton, 200 St. Paul street, conducted the sale for the owner, H. S. Atkinson of Philadelphia, Pa.

**Baltimore—Store Building.**—Lemuel T. Apold, Colonial Trust Co., Saratoga, near Charles street, has awarded contract to Thos. P. Johns, 403 McCulloh street, for construction of the building to be located at 8 East Baltimore street, and occupied by Messrs. Likes, Berwanger & Co., dealers in and manufacturers of clothing, now at 319 West Lexington street. Mr. Johns was previously reported as receiving contract for 10 and 12 East Baltimore street, a part of same building. According to previous reports, structure will be five stories high, 54x115 feet; brick and terra-cotta trimmings; concrete foundation; mill construction; metal frames and sashes; wireglass; steel ceilings; sprinkler system; cash-carrier system; electric wiring and fixtures; sanitary plumbing; steam-heating system; two passenger hydraulic elevators; one hydraulic freight elevator; electric plant consisting of two 150-horse-power boilers, two 100-horse-power engines, two 100-kilowatt dynamos and various sizes of motors. Messrs. Sperry, York & Sawyer, architects, Builders' Exchange Building, Charles and Lexington streets, prepared plans and specifications.

**Baltimore—Business Building.**—The Title Guarantee & Trust Co., 202 North Calvert street, is negotiating for the purchase of the building site at northwest corner of Charles and Baltimore streets for a client who contemplates erecting a modern business structure, details of which will be determined after site has been obtained.

**Baltimore—Office Building.**—The Merchants & Miners' Transportation Co., 604 North Charles street, has engaged Edward Brady & Son, 1109 Cathedral street, to prepare estimates on the erection of the company's proposed five-story office building, about 74x74 feet in size, to be located at the southeast corner of Light and German streets, plans and specifications for which were prepared by Messrs. Charles E. Cassell & Son, architects, 230 North Charles street.

**Baltimore—German Bank Building.**—The German Bank, northwest corner of Holliday and Lexington streets, has engaged Messrs. Baldwin & Pennington, architects, 311 North Charles street, to prepare plans and specifications for the construction of the bank's office building to be located on the northwest corner of Holliday and Baltimore streets. Some weeks ago it was announced that the bank officials had invited preliminary sketches from various architects, and those submitted by Baldwin & Pennington were preferred. Further details will be announced when plans are completed.

**Baltimore—Store Buildings.**—M. Kolker, 18-20 Harrison street, has purchased through Charles Morton, 200 St. Paul street, property on Marsh Market Space, and will erect several three-story buildings with store front, 60x30 feet.

**Baltimore—Restaurant Building.**—It is reported that New York capitalists will expend \$100,000 for the erection of a restaurant building three stories high at 306 and 308 East Baltimore street, negotiations for which site are now pending. Horace H. McSherry of Baltimore is interested in the purchase of the site.

**Baltimore—Store and Office Building.**—Messrs. George L. Altwater & Co., liquor dealers, 220 East Pratt street, have engaged Henry J. Tinley, architect, 421 St. Paul street, to prepare plans and specifications for the construction of a store and office building, to be occupied by the firm, at 216 East Pratt street. The building will be three stories high, of brick, 24x40 feet; concrete foundation; galvanized cornices; slag roofing; hot-air-heating equipment; sanitary plumbing; gaslighting fixtures; hand-power elevator, etc. Contract for erection will be awarded to Jacob Peters, 1132 Highland avenue.

**Baltimore—Dwellings.**—Walter L. Westphal, contractor, 1214 Federal street, will erect 17 two-story houses, 12x37 feet, at the corner of Patterson Park and Collington avenues, to cost about \$10,000.

**Baltimore—Business Building.**—Brady & Watters, 532 St. Paul street, have secured contract for the alteration and improvements to building at 624 West Pratt street, which will consist of reinforcing the present building and the erection of an addition in the rear. Charles E. Cassell & Son, 411 North Charles street, are the architects.

**Baltimore—Warehouses.**—Haskell & Barnes, architects, Central Savings Bank Building, Charles and Lexington streets, have distributed plans and specifications for two warehouses to be erected for Henry Marcus & Son, 310 West Pratt street. One will be located at Calvert and Water streets and will be 26x31 feet; the other will be on a corner site bounded by Grant, Water and Hollingsworth streets and will be 61x100 feet. Both structures will be seven stories high with basement; modeled brick front with terra-cotta trimmings; concrete foundations; steel beams and girders; cast-iron columns; tin roofing; electric wiring and fixtures; sanitary plumbing; elevators, etc. The bidders are Cramp & Co., 407 St. Paul street; E. D. Preston, 22 Builders' Exchange Building, 2 East Lexington street; John R. Wiggins & Co., 323 St. Paul street; Henry Pierson, 1009 Hanover street; J. Henry Miller, 110 Dover street; Israel Griffith, Builders' Exchange Building; Thomas L. Jones & Son, 410 West Saratoga street; Richardson & Burgess, incorporated, 1005 Linden avenue; bids to be in August 9. This building previously mentioned.

**Baltimore—Warehouse.**—Messrs. Mottu & White, architects, 402 St. Paul street, who previously received orders to prepare plans and specifications for the warehouse to be

erected by Messrs. Martin Gillet & Co., tea merchants, 1120 Cathedral street, at Lombard street, Cheapside and Franklin lane, have about completed the drawings. The plans and specifications have been distributed to the bidders. The building will be six stories high; pressed-brick and terra-cotta front; elevators; steam-heating system; sanitary plumbing, etc. The bidders are Brady & Watters, 532 St. Paul street; John Cowan, 106 West Madison street; A. K. Boteier, 1305 Shields alley; John R. Wiggins & Co., 323 St. Paul street; Murphy Construction Co., 202 West Fayette street; R. C. Ballenger & Co. This building previously mentioned.

**Baltimore—Store Building.**—Charles A. Edberg, merchant tailor, 101 West Fayette street, has had plans and specifications, which were prepared by Hale & Morse, architects, 21 East Saratoga street, distributed by Butler & Rodman, architects, 331 North Charles street, associated with Hale & Morse, for the erection of store and office building to be located at 9 West Fayette street. The structure will be four stories high, 19x74 feet; brick with ornamental terra-cotta trimmings; concrete foundations; steel beams; tin or slag roofing; electric wiring and fixtures; gas fixtures; copper cornices; hand hoist; sanitary plumbing; steam-heating system, etc.; cost to be about \$16,000. The bidders named are the Murphy Construction Co., 202 North Liberty street; D. W. & G. H. Thomas, 419 North Charles street; Willis & Mason, 303½ St. Paul street; Brady & Watters, Centre and St. Paul streets; the John A. Sheridan Company, 321 North Holliday street; J. Henry Miller, 110 Dover street, and Henry Rippe, 7 Clay street.

**Baltimore—Engine-house.**—The city will expend about \$12,000 to repair and improve No. 7 engine-house, Druid Hill avenue and Eutaw street; J. Edward Preston, Inspector of Buildings; office in City Hall.

**Baltimore—Warehouse Extension.**—The Baltimore & Ohio Railroad Co., with offices at Charles and Saratoga streets, has prepared and distributed plans and specifications for an extension to its terminal warehouse at Camden Station. The structure will be of brick, eight stories high, 50x416 feet, and will cost about \$250,000. Bids are to be in by August 10.

**Baltimore—School Building.**—J. H. Geis & Co., 1228 West Lafayette avenue; George H. Blake, 2304 Ashland avenue; Arthur F. West, 217 South Gilmore street, and J. F. Hampton, 2331 Walbrook avenue, are among the builders who submitted bids for the construction of the schoolhouse to be erected at Curtis Bay, for which \$15,000 is available. Plans and specifications were prepared by H. G. Crisp, architect, Builders' Exchange Building.

**Baltimore—Warehouse.**—J. Henry Miller, builder, 110 Dover street, has secured permit for the erection of warehouse at 113 Commerce street for Charles H. Root & Co., for which he recently received contract. The structure will be seven stories high, 29x34.6 feet; concrete and brick foundation; slag roofing; galvanized-iron cornices, etc. The cost will be about \$25,000. Owen & Sisco, architects, 14 West Lexington street, prepared the plans.

**Baltimore—Store.**—Cramp & Co., 407 St. Paul street, have secured permit for the erection of store building at 30, 32 and 34 South Charles street for the Safe Deposit & Trust Co., for which they were recently awarded contract. Structure will be five stories high, 60x131 feet; brick front with terra-cotta trimmings; terra-cotta cornices; concrete and brick foundation; steel beams and girders; steam heating, etc., and will cost about \$50,000. Charles E. Cassell & Son, architects, 411 North Charles street, prepared the plans.

**Baltimore—Business Building.**—The Safe Deposit & Trust Co., 13 South street, trustee for the Richard M. Pleasant estate, has distributed the plans and specifications for the construction of a business building at 15 East Lombard street, the structure having previously been reported in these columns. Bids are to be submitted by August 12. The bidders are as follows: Thomas L. Jones & Son, 410 West Saratoga street; Edward Brady & Son, 915 Park avenue; J. Henry Miller, 110 Dover street, and D. W. & G. H. Thomas, 419 North Charles street.

**Baltimore—Office Building.**—Rumors, which the company's officials decline to confirm, state that the Consolidated Gas Co., temporary location 602 North Charles street, has engaged Messrs. Sperry, York & Sawyer, Builders' Exchange Building, Lexington &

Charles streets, as architects to prepare plans and specifications for the proposed office building to be erected by the company for its own exclusive use. It is understood that the building will be of fireproof construction, five stories high, and modernly equipped in every way.

**Baltimore—Hotel.**—The Rennert Hotel Co., George K. McGaw, president, Saratoga and Cathedral streets, has definitely decided to build an addition on the Clay-street side of the Hotel Rennert. The addition will be four or five stories high, 60x100 feet, conforming in architecture to present structure, and will contain 100 rooms. Architect to prepare plans and specifications has not been chosen.

**Baltimore—School Building.**—Hugh S. Magruder, architect, 410 St. Paul street, has completed plans and specifications for the school building to be erected at Clinton and Pratt streets by the city. Structure to be 160x160 feet, two stories high, with steam-heating equipment, fire-escapes, brick walls, stone trimmings, etc., containing eight classrooms, and cost about \$6200. The bidders are Messrs. Daniel Harding and Bosley Bros. of Towson, Md.; Jacob Peters, 1132 Highland avenue; Joseph Schamberger, 2214 Boyer street; John Hiltz & Son, 3 Clay street, and John A. Sheridan & Co., 321 North Holliday street. Their bids will be opened on August 9.

**Baltimore—First National Bank.**—The First National Bank, temporary location at Gay and High streets, will soon receive the completed plans and specifications from T. Henry Randall of 51 Madison avenue, New York city, for the banking structure to be built on the old site at 17 South street. The new structure will be one story high, designed exclusively for the bank's use. Messrs. Worthington & Ahrens, 8 East Lexington street, are associated with T. Henry Randall in furnishing these plans.

**Baltimore—Chamber of Commerce.**—J. J. Walsh & Son, 1525 Maryland avenue, have been awarded contract for the construction of building for the Chamber of Commerce, to be erected on site at Holliday and Water streets and Postoffice avenue. Structure to be five stories high with basement, 85.4x186.4 feet; brick with granite base and terra-cotta trimmings, cornice and coping; present foundation; steel frame fireproof construction; cast-iron columns; slag roofing; reinforced concrete floors; steel and iron stairways with slate treads; skylights; pavement lights; metal frames and sashes; wireglass; asbestos floorings. Elevators, plumbing, heating, electric wiring, gas piping, marble work, glass and sidewalk paving not included in contract. Plans and specifications were prepared by Charles E. Cassell & Son, architects, 411 North Charles street. This building previously mentioned.

**Baltimore—Church Building.**—Charles E. Cassell & Son, architects, 411 North Charles street, have distributed plans for the Church of the Messiah to be erected at the southwest corner of Gay and Fayette streets. Structure will be 85x139 feet; walls of colonial brick on white marble base with cream-colored terra-cotta trimmings. The main auditorium and Sunday-school room will be on same floor, and so arranged that they can be thrown into one room, giving a seating capacity of about 1000. Rev. Peregrine Wroth, 215 East Preston street, is the rector. Among the bidders are Edward Brady & Son, 1113 Cathedral street; Edward D. Preston, 22 Builders' Exchange Building; John Hiltz & Son, 3 Clay street; Tattersson & Thuman, Pratt and Greene streets; J. & S. H. Lamb, 253 West Preston street; J. J. Walsh & Son, 1525 Maryland avenue, and Israel Owens, Mt. Washington, Md. Bids to be in August 10. This building previously mentioned.

**Baltimore—Store and Office Building.**—Henry S. Rippel, 7 Clay street, is preparing bid for office and store building to be erected at 9 West Fayette street, after plans and specifications by Butler & Rodman, architects, 335 North Charles street, associated with Hale & Morse, architects, 21 East Saratoga street. Structure to be four stories high, 19x74 feet; pressed-brick front with copper cornices; concrete foundation; steel beams; slag roofing; electric wiring; plumbing; steam heating; hand-power elevator; iron window guards; vault and skylights, etc.; to cost about \$16,000. This building previously mentioned.

**Baltimore—Warehouse.**—Henry S. Rippel, 7 Clay street, is preparing bid for the erection of the warehouse to be erected at southeast corner of Grant and Mercer streets for William Depkin, after plans by Henry Pierson, 1909 Hanover street. Structure will be four stories high, 40x40 feet; of brick and stone with concrete foundation; steel beams; cast-iron columns; tin roofing; galvanized-iron cornices; plumbing; hand-power elevator, etc.

#### Manufacturing Buildings and Other Enterprises.

**Baltimore—Electric-light and Power Plant.** It is stated that the general mortgage bondholders of the Maryland Telephone & Telegraph Co. are generally consenting to an exchange of their bonds for bonds in a new company to be organized by the Maryland corporation in pursuance of its plans for building an electric-light and power plant. The new company will issue, it is reported, \$6,000,000 of bonds, and will own both the new electric plant and the telephone systems established. The Maryland Telephone & Telegraph Co. was announced in this column several months ago as having received the required municipal franchise enabling it to build the electric plant, the cost of which, it has been reported, will be about \$2,000,000. David E. Evans is president; offices in Maryland Telephone Building, Lexington and Courtland streets.

**Baltimore—Cloth-sponging Plant.**—Messrs. Morrow Bros. are additional to the builders reported last month as bidding on the construction of the structure to be erected at 515 West Lombard street by Julius Rothholz of 410 West German street. This building is to be equipped, as previously stated, for a cloth-sponging plant. It will be three stories high, 31x17½ feet; brick; steel beams and girders; cast-iron columns; fire shutters; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevator; boilers; engines, etc. Heating, elevator, boiler, engine, office partitions, electrical work, gas and electric fixtures not included in builders' contract. Louis Levi, architect, Central Savings Bank Building, Charles and Lexington streets, prepared the plans and specifications.

**Baltimore—Trousers Manufacturing Plant.** The Metropolitan Pants Co. has been incor-

porated, with capital stock of \$20,000, for manufacturing trousers, by Messrs. Solomon Ginsberg, 10 North Howard street; Joshua S. Balser, Isaac Kline and Nathan Balser. Location has not been selected, but company is negotiating for a warehouse on Hopkins Place.

**Baltimore—Coal, etc.**—Incorporated: The Jefferson Coal Co., capitalized at \$1000, to deal in coal, wood, etc., by Andrew J. Clarke, 239 South Washington street; James Lawson, George J. Schedel, Raymond W. Lampher and William F. Spies.

**Baltimore—Fertilizer Manufacturing.**—The Hall Agricultural Co. has been incorporated at Washington, D. C., with an authorized capital stock of \$88,000, by Robert Ober, president of the G. Ober & Sons Co., 703 Fidelity Building; Wilton J. Lambert, attorney, of Washington, and Rudolph Yeatman.

**Baltimore—Chocolate Manufacturing.**—The Eagle Cocoa & Chocolate Manufacturing Co. has been incorporated, with capital stock of \$5000, for the purpose of manufacturing cocoa, chocolates, candies and other confections, by Joseph H. Bellis, Harriet J. Bellis, John Z. Whitney, Edward S. Kines, 1630 Druid Hill avenue, and Myers Ahlfelder.

**Baltimore—Barber Supplies.**—Incorporated: The Union Barber Supply Co., with capital stock of \$25,000, for dealing in barber supplies and fixtures, by Charles F. Klein, Richard Bannier, Bernard H. Luers, Edward S. Kines, 1630 Druid Hill avenue, and Francis De Fontes.

#### Subbids Wanted.

Mention of contractors wanting subbids on construction work and material will be found, when published, in the "Machinery Wanted" column on another page under the heading of "Building Equipment and Supplies."

#### ALABAMA.

**Anniston—Paper-box Factory.**—Alabama Paper Box Co. has been organized by G. H. Norwood and others for the manufacture of candy and hosiery boxes. Plant has a capacity of 4000 boxes a day.\*

**Birmingham—Pump Works.**—Cannon Pump Manufacturing Co. of Waycross, Ga., has let contract for the erection of plant in North Birmingham to manufacture deep-water pumps. Company is capitalized at \$25,000.

**Birmingham—Fire-brick and Roofing Company.**—North Birmingham Fire-Brick & Roofing Co. has been incorporated by J. E. Budwig, H. H. Meyers and others, with \$50,000 capital.

**Birmingham—Iron and Steel Works.**—Republic Iron & Steel Co., general offices Stock Exchange Building, Chicago, Ill., contemplates issuing \$2,000,000 of bonds for making extensive improvements at its various plants,

the plant. Improvements will be made to the plant under the direction of Mr. Geist.

**Gadsden—Steel Furnaces.**—It is reported the Alabama Steel & Wire Co. has under consideration the building of another blast furnace.

**Jasper—Coal Mines.**—G. B. McCormack and Erskine Ramsey of Birmingham, Ala., reported last week as to develop coal lands in Walker county, have incorporated the Townley Mining Co., with \$100,000 capital. Mr. McCormack is president.

**Mobile—Printing.**—Brisk Printing Co. has been incorporated, with \$15,000 capital, to take over the business of Graham & Brisk. Eugene Brisk is president; W. G. Austin, secretary-treasurer.

**Montgomery—Bridge Construction.**—Montgomery Bridge Co. has been organized, with an authorized capital of \$100,000, to construct a steel bridge over the Alabama river into Montgomery; incorporators, C. E. Halls of Montgomery, George Mattice, William O. Burke of Chattanooga, Tenn., and associates.

**Montgomery—Cotton-products Company.**—Georgia Cotton Products Co. has been incorporated, with W. S. Griffin president and Walter S. Cothran secretary-treasurer, to deal in cotton, cottonseed and other cotton products from round-bale ginneries.

**Pell City—Water-works.**—City is considering the construction of system of water-works. Address The Mayor.

**Walker County—Coal Mines and Coke Ovens.**—Leo K. Steiner, Frank Nelson, Jr., of Birmingham, Ala., and associates have acquired the property of the Empire Coal & Coke Co. in Walker county, consisting of 15,000 acres of coal lands, 100 coke ovens, buildings, machinery, etc., which they will operate. It is also stated new machinery will be installed and the output increased from 500 to 1000 tons a day.

#### ARKANSAS.

**Altus—Cotton Gin.**—Altus Gin Manufacturing & Improvement Co. has been organized with H. L. Hembree, president; J. L. Jacobs, secretary, and Alfred Saxe, treasurer. Cotton gin will be erected and equipped with the most modern machinery. Company also contemplates the erection of ice plant and oil mill; capital \$10,000.

**Belleville—Cotton Gin and Grist Mill.**—Belleville Gin & Milling Co. has been incorporated, with \$5000 capital, to operate a cotton gin and grist mill. F. C. Jones is president; J. W. Wilson, vice-president, and C. V. Harris, secretary-treasurer.

**Dermott—Mercantile.**—Edward E. Porter, John H. Porter, W. H. Porter and Walter A. Porter have incorporated the Porter Mercantile Co., with \$50,000 capital.

**Farmington—Lime-kin.**—Alba Lime Co., reported incorporated last week with \$25,000 capital, to manufacture and deal in lime, etc., will operate kiln with a capacity of 120 barrels of lime. W. A. Shreve is engineer in charge.\*

**Hardy—Cotton Gin and Grist Mill.**—Incorporated: Hardy Milling Co., with \$5000 capital, to do a general milling and ginning business, by J. R. Metcalf, C. D. Foster, W. H. Hann, J. W. Hastings and C. T. Chapman.

**Rector—Box and Crate Factory.**—Proctor Box & Crate Co., reported incorporated last week with \$25,000 capital to manufacture boxes, crates, etc., has had plans prepared by J. M. Crunk for the erection of factory building, 60x80 feet, and boiler-room, 30x40 feet; capacity 400,000 berry boxes and crates per day.

#### FLORIDA.

**Jacksonville—Chemical Works.**—Mellor Manufacturing Co. is having plans prepared for erection of buildings to replace those reported burned last week; main structure to be of stone, 26x40 feet, 16 feet high; other building of wood and iron, 20x20 feet, 14 feet high. Company also contemplates increasing capital from \$20,000 to \$40,000.

**Jacksonville—Railroad Shops.**—Reports state that the Jacksonville & Southwestern Railroad, E. S. Spencer, general manager, Jacksonville, contemplates enlarging its shops.

**Jacksonville—Grocery.**—Miller & Mallard Grocery Co. has been incorporated, with \$100,000 capital. Philip Miller is president; C. B. Mallard, vice-president, and C. N. Griffin, secretary-treasurer.

**St. Augustine—Electric-light Plant.**—It is reported that T. R. Osmond of New York contemplates establishing electric-light plant.

#### GEORGIA.

**Atlanta—Railroad Shops.**—It is reported that the Louisville & Nashville Railroad, Geo. E. Evans, general manager, Louisville, Ky., will erect shops in West End.

**Atlanta—Mineral Water, etc.**—Lith-Aris

## Best Medium for Information.

WELSBACH COMPANY,  
1421 North Charles Street.

Baltimore, Md., July 12, 1904.

Manufacturers' Record Publishing Co., Baltimore:

Gentlemen—In renewing our subscription to the MANUFACTURERS' RECORD for another year, I take pleasure in assuring you this paper has been of great assistance to us in securing business within the burnt district. It has kept us at all times well advised of the movements of prospective customers, and the details of this information have been remarkably accurate. We are pleased to recommend it as the best medium for information concerning new Baltimore.

Very truly yours,

FRANK W. EMORY, Manager.

porated, with capital stock of \$20,000, for manufacturing trousers, by Messrs. Solomon Ginsberg, 10 North Howard street; Joshua S. Balser, Isaac Kline and Nathan Balser. Location has not been selected, but company is negotiating for a warehouse on Hopkins Place.

**Birmingham—Coal Mines and Coke Ovens.**—Empire Coal Co. has been incorporated with \$50,000 capital to mine coal, manufacture coke, etc. W. C. Hamilton is president; W. H. Duran, vice-president, and Basil Manley, secretary.

**Brighton—Water-works.**—Local parties contemplate organizing stock company, with \$10,000 capital, for supplying city with water. A six-inch main will be laid for conveying water from a spring one and one-half miles from city, and a standpipe, 16x40 feet, will be erected. L. N. Buell, mayor, can be addressed.\*

**Cherokee—Water-power-Electric Plant.**—Cherokee Development & Manufacturing Co., reported last month as having completed surveys for the erection of electric plant at Cherokee Bluff, on the Tallapoosa river, and the development of water-power for its transmission by electricity to Birmingham, has increased capital from \$50,000 to \$100,000. Thomas H. Watts is president.

**Corona—Coal-mining.**—Company has been organized with H. P. Gibson, president; J. G. Thompson, secretary, and J. G. Hughes, treasurer, for the development of 1000 acres of coal lands near Corona; capital \$50,000. Contract has been let for 100 tram cars and the erection of 75 operatives' houses.

**Evergreen—Fertilizer Factory.**—T. F. Goodson, C. P. Denning, J. I. McKinney, R. S. Hart and associates have incorporated the Conecuh Fertilizer Co., with \$20,000 capital.

**Florence—Gas Plant.**—Charles B. Kelsey, president Commercial Savings Bank, Grand Rapids, Mich., and C. H. Geist, New York Life Building, Chicago, Ill., have purchased the plant of the gaslight company, and a \$150,000 company will be organized to operate

which include the Pioneer Furnaces, Alabama Works, Birmingham Rolling Mills, etc.

Company, reported incorporated last week with \$15,000 capital to deal in mineral waters, etc., will succeed the Sulphur-Magnesia Lithia Water Co. New building will be erected.\*

Bainbridge—Electric-light Plant.—City will vote August 8 on the issuance of \$20,000 of bonds for the erection of electric-light plant or the purchase of plant now furnishing light to city. Address The Mayor.

Barnesville—Coal and Lumber Company.—Barnesville Coal & Lumber Co. has been incorporated, with \$3000 capital, by W. B. Baird, D. C. Burns and associates.

Chipley—Water-works.—Reports state that Murrall Bros. and O. D. Tucker have formed company to construct water-works.

Columbus—Water-works Improvement.—City has engaged J. L. Ludlow, C. E. Winston-Salem, N. C., to prepare plans and specifications for 20,000,000-gallon storage reservoir.

Columbus—Cotton Mill.—It is reported that J. F. Hanson of Macon, Ga., and his associates, lately referred to as negotiating for site for another cotton mill, contemplate investing \$1,000,000 for building and equipping a plant to manufacture high-grade goods.

Columbus—Cotton Mill.—It is stated that G. Gunby Jordan and Curtis Jordan, both of Columbus, will be interested with John T. Abney of the Laurens Cotton Mills, Laurens, S. C., reported last week as to having obtained capital to build a 10,000 or 20,000-spindle cotton mill in Columbus.

Douglas—Electric-light Plant and Water-works.—City has issued \$20,000 of bonds for the construction of electric-light plant and water-works. Address The Mayor.

Georgia—Mining.—Georgia Mining Co., with \$250,000 capital, by Robert H. Jones, Joseph A. Bond and Geo. W. Quinn, all of Wilmington, Del.

Mathis—Lumber Mill.—W. T. Anderson is erecting plant for the manufacture of pine and poplar siding, etc.\*

Newnan—Electric-light Plant.—City will vote on the issuance of \$20,000 of bonds for the purchase or erection of electric-light plant. Address The Mayor.

Savannah—Electrical-repair Works.—F. M. Yarrow, W. M. Foran, W. C. DeVane and W. C. Bryant have incorporated the Savannah Electric Repair Co., with \$6000 capital, and privilege of increasing to \$25,000.

Savannah—Subway.—Savannah Lumber Co. has contract at \$20,000 for constructing the proposed Gwinnett-street subway.

Tifton—Water-works.—J. A. McCrerey has completed surveys for the construction of proposed system of water-works at a cost of \$32,000. Address The Mayor.

#### KENTUCKY.

Cloverport—Roofing and Tile Plant.—Murray Roofing & Tile Co. has been reorganized with E. S. Moore of Parkersburg, W. Va., president; C. A. Cray of Huntington, W. Va., vice-president; C. R. Murray of Huntington, W. Va., secretary, and A. H. Murray of Cloverport, manager. Company will at once arrange for the operation of the plant; capacity 800,000 bricks and 12,000 shingle tile daily; capital \$60,000.

Glasgow—Oil Wells.—Preston Oil Co. has completed organization with L. W. Preston, president; J. N. Smith, vice-president; W. B. Smith, secretary, and T. P. Dickinson, treasurer. Company has purchased the properties of the New Amber Oil Co., the Glasgow Oil Co. and the Preston Oil, Gas & Mineral Co. in the Salt Lick Bend field and will at once arrange to extensively operate the field; capital \$500,000.

Hopkinsville—Electric-light and Gas Plant.—W. T. Tandy, J. A. Young, Jr., of Hopkinsville and W. C. White of Cadiz, Ky., have organized the Hopkinsville Gas & Electric Co., to continue the plant of the Hopkinsville Gas & Light Co., increasing the capital stock \$10,000.

Louisville—Tobacco Warehouse.—Continental Tobacco Co. has let contract for erection of four-story warehouse, 91x365 feet, to cost \$25,000.

Louisville—Water-works.—Commissioners of Lakeland Asylum contemplate expending \$50,000 in improving water supply by walling in Pusey lake, on the asylum grounds.

Louisville—Incorporated.—Mintola Company, with \$1000 capital, by W. P. Davis, R. M. Kelly and M. C. Peter.

Louisville—Cotton Warehouses.—Reports state that J. Walter Bell of Louisville contemplates organizing the National Storage Warehouse Co., with \$1,000,000 capital, for the establishment of storage warehouses for cotton in a number of cities throughout the South, including Louisville. Summerwell, Shoup & Vermilye and George H. Hull of the

American Pig-Iron Warrant Storage Co., both of New York, are said to be interested.

Louisville—Laundry.—Charles F. Deuser, George P. Deuser and L. B. Deuser have incorporated as the Old Reliable Laundry with \$3000 capital.

Louisville—Oil Refinery.—It is reported that G. A. Sonricker of Pittsburg, Pa., representing a Cleveland (Ohio) syndicate, is investigating with a view to establishing \$50,000 oil refinery at some point in Kentucky.

Louisville—Elevator Company.—Clint C. McClarty, Elliott K. Pennelaker, McClellan C. Fullenlove and H. S. Fullenlove have incorporated the Fullenlove Elevator Co., with \$20,000 capital.

Manitow—Mineral Lands.—Gordon Land Co. of Madisonville, Ky., has purchased the mineral rights to 2990 acres of land on Rose creek.

Middlesboro—Coal Mines and Coke Ovens.—Wallner Coal & Coke Co. has been incorporated, with \$50,000 capital, by D. B. Logan, C. E. Hill and E. R. Short.

Monticello—Oil and Mineral Lands.—Chas. Work, Thomas Turner of Monticello and Caleb Burt of Maunington, W. Va., have incorporated the A. C. Free Company, with \$12,000 capital, to prospect for oil and other minerals.

Owensboro—Novelty Works.—Incorporated: Price-Klein Company, by Martin Klein and others, with \$75,000 capital, for the removal of novelty plant from Cleveland, Ohio, and to consolidate with the Price Furniture Co.

Princeton—Laundry.—Rich & Steel will rebuild laundry recently burned at a loss of \$200; structure to be 65x29 feet.\*

Wheatcroft—Coal Mining.—It is reported that John Tonkin of Wilkesbarre, Pa., is arranging for the development of coal property near Wheatcroft. Mining equipment is being installed, which will be operated by electricity.

#### LOUISIANA.

Columbia—Bridge Construction.—Police Jury of Caldwell parish will advertise for plans, specifications and bids for the construction of bridge over the Ouachita river.

Crowley—Stock-feed Mill.—Lawrence Feed Co., Ltd., has been organized, with \$150,000 capital, to manufacture a new stock feed out of rice bran from which the oil has been extracted by a new process. P. L. Lawrence is president; F. M. Pratt, vice-president, and R. M. Lawrence, secretary. Plant is being erected at a cost of \$80,000, and machinery has been ordered; capacity 100 tons of feed per day. This company was reported in April as to be organized.

Independence—Veneer and Package Company.—Independence Veneer & Package Co. has been organized with \$50,000 capital. Ben Huck is president; P. L. Dolhonde is vice-president, and R. E. Starns, secretary-treasurer.

Lake Charles—Oil Lands.—Chartered: Moore Bros. Oil Co., with an authorized capital of \$1,000,000, to develop oil lands. O. E. Moore is president; Fred L. Moore, vice-president, and J. Fred Dennison, secretary-treasurer.

Morgan City—Farming Development.—Chartered: Terrebonne Land & Development Co., with \$300,000 capital. Charles F. Buck is president; Sam Henderson, vice-president, and Charles Kerst, secretary-treasurer, all of New Orleans. Company will construct a number of canals for draining 50,000 acres of land in Terrebonne parish, dividing it up into farming lands.

New Orleans—Cotton Gin.—It is reported that the Union Oil Co., John S. McGehee, manager, will erect cotton gin at Algiers or Gretna. It is also stated that the company contemplates establishing cottonseed-oil mill.

New Orleans—Oil pipe Line.—Gulf Refining Co. contemplates laying pipe line from pumping station at Gretna to New Orleans, and has applied for franchise.

New Orleans—Dry dock.—It is reported that Woodward, Wight & Co., Maurice Stern, Frederick Camors and George Hero have purchased from the Good Intent Dry-Dock Co. and the Oliver heirs land in Algiers with a frontage of 1400 feet on the river, and are having plans prepared for a 5000-ton dry-dock, length 350 feet, 50 feet high and breadth 100 feet, to be constructed of oak. New owners contemplate organizing stock company with \$500,000 capital.

New Orleans—Dry dock.—McLellan Dock Co. has resumed control of its dock property and will at once arrange for enlarging plant, which will include the building of iron sectional dry-dock 300 feet long, 35 feet deep, capable of lifting vessels of 3000 to 3500 tons, for which plans and specifications were previously reported as being prepared by Warren Johnson; William A. McCorkle, engineer in charge.

Oberlin—Water-works.—City is arranging for the installation of system of water-works. An electric-light plant is also under consideration; Judge Chenier, mayor.

Winnsboro—Mercantile.—Incorporated: Jarrel-Newson Mercantile Co. with \$20,000 capital. Monroe Jarrel is president; W. A. McCoy, vice-president, and W. H. Newson, secretary-treasurer. Company will at once arrange to erect building.

#### MARYLAND.

Annapolis—Knitting Mill.—The Business Men's Association is conferring with the Amherst Knitting Co., Jasper and Clearfield streets, Philadelphia, Pa., regarding establishing a branch knitting mill at Annapolis.

Rising Sun—Telephone System.—Cell Farmers' Telephone Co., recently reported incorporated under Elkton for the construction of telephone system in Cecil county, has completed organization with Elwood Balderston of Colorado, Md., president, and Cecil E. Lwing of Rising Sun, secretary-treasurer.

Salisbury—Planing Mill and Lumber Plant.—E. S. Adkins & Co., Inc., are having plans prepared for rebuilding of planing mill and building-material factory recently burned; structure to be 52x86 feet.

Salisbury—Fertilizer Factory, etc.—William R. Tilghman Company has been incorporated, with \$100,000 capital, by William B. Tilghman, Sr., William B. Tilghman, Jr., William J. S. Taton, Oscar L. Morris and Charles D. Williams, to deal in and manufacture fertilizer, lumber, shingles, etc. This is an established company.

Washington, D. C.—Water Motor.—International Motor & Power Co. has been organized with Hopewell H. Darnell of Washington, president; Samuel W. Smith of Michigan, vice-president; Samuel H. Bell, secretary, and Bert H. Brockway, treasurer. Company will manufacture and sell a motor and power device invented by William L. Walter of Pontiac, Mich., who will also be superintendent, and will establish power plants; capital \$15,000,000; office, 701 7th street N. W.

Williamsport—Bridge.—Commissioners of Washington County are considering a proposition to construct a \$70,000 bridge across the Potomac river at Williamsport.

Williamsport—Cannery.—Williamsport Canning Co. has been incorporated, with \$6000 capital, by W. B. Thomas, W. Frank Thomas, Theodore A. Lauffman and Jos. E. Hunter, all of Westminster, Md.

#### MISSISSIPPI.

Bond—Lumber Company.—J. E. North Lumber Co. has increased capital from \$250,000 to \$1,000,000.

Carrollton—Water-works.—R. C. Huston, Laurel, Miss., is engineer in charge of construction of water-works reported last week to be built at a cost of \$11,000; capacity 40,000 gallons; R. H. Porter, Clinton, Ky., architect.

Columbus—Mercantile.—Columbus Dry Goods Co. has incorporated, with \$50,000 capital. Jos. Donoghue and associates were previously reported as to establish dry goods company.

Como Depot—Cotton Gin.—Planters' Gin Co. has been incorporated, with \$5000 capital.

Durant—Saw-mill, Shingle Mill and Bentwood Factory.—Standard Lumber & Bentwood Co. has been incorporated, with \$30,000 capital, by O. A. Wright and W. H. Morlock. O. A. Wright and associates were reported last month as having purchased 4000 acres of land near Durant on which to erect saw-mill, shingle mill and bentwood factory.

Jackson—Railway Device.—Robert G. Musgrove contemplates organizing company to manufacture a railway rail fastener which he has patented.

Marks—Bridge Construction.—Quitman county has voted the issuance of \$20,000 of bonds for the construction of bridge across the Coldwater river at Marks. Address County Judge.

Meridian—Cotton Compress.—Edwin McMorries, H. M. Threefoot, John V. Williams, William Wright, E. B. McRaven and associates have incorporated the Star & Planters' Compress Co., with \$200,000 capital, to erect and operate a cotton compress and warehouse. Mr. McMorries was previously reported as interested in the erection of proposed compress.

Merrill—Real Estate.—J. I. Dixon and Wm. Vizard have incorporated the Dixon Land Co., with \$12,000 capital.

Monticello—Cottonseed-oil Mill, etc.—Forest Produce & Manufacturing Co. has been incorporated, with an authorized capital of \$250,000, for the establishment of an oil-mill and other manufacturing enterprises.

New Albany—Water-works and Electric-light Plant.—City has voted the \$20,000 bond issue, previously reported, for the construction of water-works and electric-light plant. Address The Mayor.

Savage—Cotton Gin.—Incorporated: E. C. Turley Gin Co., with \$4000 capital.

Seminary—Water-works.—City contemplates issuing \$10,000 of bonds for construction of water-works. Address The Mayor.

#### MISSOURI.

Benton County—Mining.—American Investment & Development Co. has been incorporated, with Nelson A. Miles of Washington, D. C., president; Mr. Coney, vice-president and general manager; Fred R. Waters of Kansas City, secretary, and John R. Mulvane of Topeka, Kan., treasurer, for the development of mining interests in Benton county; capital \$500,000.

Chillicothe—Brick and Tile Works.—Meek Brick & Tile Co. has been incorporated, with \$50,000 capital, by Jim Meek, Paul Kitt, Basil Meek and others.

Clayton—Publishing.—Incorporated: Clayton-Argus Publishing Co., with \$12,000 capital, by Lee Barton, J. E. Hecetford, E. W. Banister and others.

Columbia—Water-works and Electric-light Plant.—City has purchased the Columbia Water & Light Co.'s plant, for which \$100,000 was previously reported voted. About \$30,000 will be expended in improvements, including the installation of new boiler, dynamo, pipe and deep-well equipment; John S. Bicknell, city clerk.

Kansas City—Manufacturing.—Incorporated: Carr Manufacturing Co., with \$50,000 capital, by Horace Carr, Jr., Joseph H. Larwell and William Mann.

Stanberry—Mercantile.—H. C. Keatner, E. L. Tracy, F. D. Bowen and others have incorporated the Kentner Dry Goods & Clothing Co., with \$17,000 capital.

St. Louis—Silk Company.—Morris Woolf Silk Co. has been incorporated, with \$200,000 capital, by Morris Woolf, George Woolf and Alfred E. Woolf.

St. Louis—Mineral Waters.—Hy. M. Noel, Charles Noel, Richard J. Ryan, J. F. Schaffy and others have incorporated the Mountain Valley Water Co., to deal in natural and artificial mineral waters; capital \$3000.

St. Louis—Construction Company.—McIntyre-Teese Construction Co. has been incorporated, with \$15,000 capital, by Patrick McIntyre, John Teese and W. H. Bates, to do a general contracting and construction business.

St. Louis—Mercantile.—Andrew J. Child, Philip S. Child and Charles J. Child have incorporated the A. J. Child & Sons Mercantile Co., with \$25,000 capital.

St. Louis—Automobiles.—Incorporated: Macnash Automobile Co., by James Macnash, Ralph B. and L. M. Macnash of St. Louis, and Fred J. Macnash of Chicago, Ill., to deal in automobiles and supplies; capital \$10,000.

St. Louis—School buildings.—Managers of Washington University, reported last week as having plans prepared by Mauran, Russell & Garden for new buildings, will erect structures to be occupied by the Smith Academy and the Manual Training School, of brick and stone fireproof construction, 200x75 feet, four stories, with tile roof; Manual Training building to have workshop, 112x15 feet, equipped with modern machinery and connected with main building by covered passage; total cost \$250,000.

St. Louis—Zinc and Lead Mining and Milling.—Equitable Zinc & Lead Mills Co. has been incorporated, with \$500,000 capital, by John Morton, Frank Morton, William S. McIntosh, Alonzo C. Bowen and Frank A. Smith, to mine and mill zinc and lead.

St. Louis—Hay and Grain Company.—Eugene A. Cuendet, Louis Cuendet and Millie A. Cuendet have incorporated the Cuendet Hay & Grain Co. with \$5000 capital.

St. Louis—Drug Manufacturing.—Dixon-Ferris Drug & Manufacturing Co. has been incorporated with \$10,000 capital to manufacture and deal in drugs; incorporators, Samuel J. Dixon, Henry F. Ferris, James W. Sutton, Henry M. Post and W. J. Duggan.

St. Louis—Bagging Factory, Warehouse and Office Building.—Crunden-Martin Woodenware Co. has had plans prepared by Mauran, Russell & Garden for the erection of five-story bagging factory, 60x110 feet, and six-story office and warehouse, 37x110 feet; cost \$260,000.

Windsor—Improvement Company.—Ionia Improvement Co. has been incorporated by James P. Allen, B. L. Hart, J. F. Wall and J. S. Calfee, with \$10,000 capital.

Windsor—Manufacturing.—H. Thompson, Walter Thompson and Guy Withers have in-

incorporated the Windsor Manufacturing Co. with \$10,000 capital.

#### NORTH CAROLINA.

Asheville—Telephone System.—Asheville Telephone & Telegraph Co. contemplates extending its lines and building another line to Hendersonville, N. C.

Asheville—Water-works.—City contemplates building a 4,000,000-gallon reservoir at a cost of \$36,000. B. M. Lee is city engineer.

Asheville—Shoe Polish Manufacturing.—Southern Polishing Co. has incorporated, with \$1000 capital, to manufacture shoe polish, shoe-polishing stands, footrests, etc., and to deal in and manufacture boots and shoes; incorporators, A. E. Acee, C. V. Reynolds and John S. Adams.

Cerro Gordo—Saw-mill.—E. D. Williamson has completed his plant for the manufacture of rough long and short leaf pine and cypress lumber and dimension timbers and is prepared to market the output.

Charlotte—Manufacturing.—John W. Todd and associates will organize company to establish manufacturing plant.

Charlotte—Bottling Works.—R. M. Brannon of Charlotte and N. J. Bussey of Columbus, Ga., have organized \$15,000 company to manufacture and sell non-alcoholic beverages. Mr. Brannon can be addressed at 200 North Tryon street.

Elizabeth City—Lumber Manufacturing.—National Box Co. has been incorporated, with \$30,000 capital, to manufacture lumber, boxes, barrels, etc.; incorporators, James F. Scott, E. H. Kruger and W. T. Old.

Greensboro—Tobacco Works.—J. M. Whitt, E. L. Morgan and W. P. Bennett have incorporated the Whitt-Morgan Company, with \$25,000 capital, to cure leaf tobacco, deal in tobacco, etc.

Greenville—Nursery.—Millsdale Nursery has been incorporated, with C. H. Crookes, president; M. L. Berry, vice-president, and J. N. Holland, secretary.

Hallsboro—Naval Stores.—Incorporated: Bogue Trading Co., with \$5000 capital, to manufacture and sell naval stores, etc., by E. P. Gatling, J. E. Schulken and Bruce Pierce.

Mt. Ulla—Cotton Gin.—A. G. Melchor of Mt. Ulla and Dr. George A. Brown of Bear Poplar, N. C., previously reported as to erect \$3000 cotton gin, have had plans prepared by E. L. Thompson for the erection of three buildings, 20x30, 20x50 and 20x25 feet; capacity, 20 bales of lint cotton per day.

Ramsey—Mercantile.—Incorporated: Watkins Leonard Company, with \$25,000 capital, by E. C. Watkins, W. H. Watkins, E. B. Leonard and I. F. Craven.

Rocky Mount—Tobacco Company.—C. C. Cooper, Mrs. C. E. Cooper, B. H. Bunn and L. V. Bassett have incorporated the C. C. Cooper Tobacco Co. with an authorized capital of \$50,000.

Sanford—Foundry and Machine Shop.—Moffitt Bros., reported last week as having purchased site on which to erect additional foundry building, have incorporated as the Moffitt Iron Works Co., with \$25,000 capital; incorporators, M. M. Moffitt, W. B. Moffitt, E. G. Moffitt and T. R. Moffitt. New building will be 300x52 feet, and will double the present capacity.

Vanceboro—Cotton Gin.—Farmers' Consolidated Ginning Co. has been incorporated, with \$3000 capital, by J. M. Lancaster, G. W. Wilson, B. F. Dinkins and others for the erection of cotton gin with a daily capacity of 30 bales.

Waynesville—Dry-kiln.—Clark & Co. contemplate erecting dry-kiln.

Wilson—Real Estate.—Bryan-Aycock Company has been incorporated, with an authorized capital of \$50,000, by B. F. Aycock, W. R. Bryan and C. S. Aycock.

#### SOUTH CAROLINA.

Belton—Water-power-Electric Plant.—Belton Power Co., recently reported incorporated with \$100,000 capital, for the development of water-power, has let contract to the J. F. Gallivan Building Co. for the building of dam on the Saluda river, 600 feet long, 32 feet high and 35 feet wide, of concrete and stone. About 5000-horse-power will be developed and transmitted electrically to Belton. J. E. Shirrine of Greenville, S. C., is engineer in charge.

Belton—Channel Construction.—U. E. Seybt and J. M. Payne contemplate clearing the channel of Rocky river from the Blue Ridge railway bridge to High Shoals, reclaiming about 2000 acres of drowned bottom land.

Charleston—Fertilizer Works, Warehouse, etc.—Ingleside Mining & Manufacturing Co., recently reported as to increase capital from \$35,000 to \$75,000, will install machinery for

mixing fertilizer, and is erecting warehouse, 80x130 feet.

Charleston—Transportation Company.—C. S. King, Jr., and others have incorporated the McClellanville Steamboat Co. to operate a line of steamboats from Charleston up the Santee river.

Columbia—Paint Factory.—Southern Paint Manufacturing Co. has been organized, with \$100,000 capital, by W. J. Murray of Columbia and G. W. Painter of Philadelphia, Pa. Factory will be erected to manufacture paints of all kinds, utilizing the yellow ochre found in Richland county.

Columbia—Marble Yard.—Chartered: Columbia Stone Co., with \$2000 capital, by A. J. Niggel and D. R. Innes. Company will erect shop 100x200 feet, with a 30-foot square addition to be used as office; main office, 1001 Main street.

Greenville—Mercantile.—Incorporated: Earle-Ballenger Company, with \$10,000 capital, by Theron M. Ballenger and Theron T. Earle.

Greenville—Cotton Mill.—The Carolina Mills, reported last week as to vote on increasing capital from \$50,000 to \$100,000, has the proposed increase definitely decided now. The company will change its mill to a weaving plant for print cloths; equipment to be 6000 spindles and 160 looms. J. E. Shirrine is the engineer in charge. Contracts for machinery are about closed.

Marion—Cotton Mill.—It is proposed to organize a company with capital stock of \$150,000 for the purpose of building a cotton mill. Henry Mullins is interested.

Piedmont—Cotton Gin.—D. E. King, D. E. Kelley and W. W. Moore have incorporated the Farmers' Ginnery Co., with \$2000 capital.

Rock Hill—Electric-light and Power Plant. Catawba Power Co. has increased capital from \$750,000 to \$850,000. Company is erecting electric-light and power plant near Rock Hill.

Sumter—Cotton Gin.—Farmers' Gin Co., reported incorporated last week with \$4000 capital, is erecting ginnery which will be equipped with four 70-saw gins, press and elevator system, and operated by a 60-horse-power engine.

#### TENNESSEE.

Bristol—Publishing.—Courier Publishing Co. has reorganized, with Robert L. Taylor president, Rhea Crawford secretary-treasurer, and \$25,000 capital. New equipment will be installed.

Chattanooga—Cotton Mill.—J. A. Caldwell proposes organizing company to build cotton mill, capital stock to be \$100,000.

Clarksdale—Canning and Preserving Factory.—It is reported that the Woerner Preserving & Packing Co. of Liverpool, N. Y., will establish canning and preserving plant.

Gordonsville—Steel Bridge.—Caney Fork Bridge Co. has been incorporated, with \$15,000 capital, to build a bridge across the Caney Fork river 370 feet long, steel trestle 138 feet long and 16 feet wide. W. T. Young is engineer in charge.

Humboldt—Machine Shops.—Humboldt Machine Shops, Messrs. Allison, Hudson & Follis, proprietors, have begun the erection of proposed shops.

Huntingdon—Telephone System.—Chartered: Consolidated Telephone & Telegraph Co., with \$50,000 capital, to operate lines in Perry, Wayne, Hardin and adjoining counties; incorporators, J. K. Barlow, J. F. Barlow of Savannah, Tenn.; T. S. Hughes of Clifton, Tenn.; F. E. Schwab of Nashville, Tenn., and associates.

Huntingdon—Stave Mill.—C. H. Wright Stave Co. has increased capital from \$10,000 to \$30,000.

Jackson—Mercantile.—C. N. Whitlow & Co. Dry Goods Co. has been incorporated, with \$25,000 capital, by C. N. Whitlow, W. W. Rogers, R. H. Whitlow, C. H. Whitlow and E. C. McClelland.

Knoxville—Cooper Shop, Warehouse, etc.—East Tennessee Brewing Co. is erecting cooper shop 130x24 feet, warehouse and boiler shop 55x50 feet, and installing two boilers of 150 horse-power each for doubling the capacity. Company also contemplates further improving plant by the erection of ice-machine house, cold-storage plant, grain elevator, etc.

Knoxville—Slate Mills.—Knoxville Slate Co. contemplates establishing slate mill.

Knoxville—Dry-kiln.—Knoxville Table & Chair Co. will erect two-story brick dry-kiln 30x50 feet.

Memphis—Land Company.—R. L. Matthews, G. W. Macrae, I. Samelson, J. C. Omberg, Jr., and J. M. Goodbar have incorporated the Matthews Land Co., with \$60,000 capital.

Memphis—Levee Work.—Contracts for 3,708,000 cubic yards of levee work have been let as follows: Talley-Bates Construction

Co., 944,000 cubic yards in the Reelfoot, lower St. Francis, upper St. Francis and upper Tensas districts at \$133,154; Lewis & Jennings, \$30,000 cubic yards in the White river and lower Yazoo districts at \$130,920; McCadden, Morgan & Co., 480,000 cubic yards in the upper Tensas district, \$93,600; Cary Bros., 200,000 cubic yards, Arkansas river, upper Tensas district, at \$30,000—all foregoing firms of Memphis; Donovan & Daly, Lake Providence, La., 314,000 cubic yards, upper Tensas district, at \$49,926; Lawrence Bros. & Leonard, Friars Point, Miss., 545,000 cubic yards in St. Francis and White river districts at \$82,633; George B. Vaughan, Natchez, Miss., 395,000 cubic yards in upper Yazoo and White river districts at \$58,049.

Memphis—Livery Company.—Henry Loeb, Michael H. Rosenthal, Sam Oppenheimer, H. T. Bruce and L. Lehman have incorporated the Mammoth Livery, Boarding and Sales Stable, with \$10,000 capital.

Memphis—Lumber Mill.—Bennett Lumber Co. and Jorgensen & Co. have consolidated, and are erecting lumber mill with a daily capacity of 100,000 feet.

Memphis—Electrical Company.—D. L. Rush, W. R. Roberts, W. H. Harvey, L. L. Pearson and Rhea P. Corey have incorporated the Sardis Electric Co., with \$25,000 capital, to engage in a general electric business.

Memphis—Stationery, etc.—Chartered: A. R. Taylor Co., with \$20,000 capital, to engage in a general book and stationery business; incorporators, A. R. Taylor, M. S. Reese, W. V. Taylor, A. J. Taylor and James E. Beasley.

Nashville—Bottling Works.—It is reported that a bottling plant will be established. Angie Cohen can possibly give information.

Nashville—Tobacco Factory.—Sloan-Trawick Tobacco Co. has been incorporated by Arch. Trawick, Walter E. James, R. L. Lamkin, J. D. Luten and A. D. Sloan to continue the business of the Trawick-James Tobacco Co. Capital will be increased from \$100,000 to \$150,000.

Newsom's Station—Artificial Building Blocks.—Newsom Crushed Stone & Quarry Co., operating stone quarries, has completed arrangements and installed machinery for molding crushed stone into ornamental blocks for house-building purposes.

Springfield—Lumber and Woodworking Plant.—Hampton, Lumsford & Johnson are erecting lumber and woodworking plant in South Springfield.

#### TEXAS.

Arlington—Electric-light and Power Plant. Chartered: Arlington Light & Power Co., to supply electric light and power, by William Dugan, F. A. Hood, W. C. Weeks, W. L. Sweet and A. W. Collins.

Bartlett—Mercantile.—Walter Dry Goods Co. has been incorporated, with \$20,000 capital, by W. W. Walton and others.

Bay City—Iron Works.—Chartered: Bay City Iron Works, to manufacture machinery, farm implements, pumps, vehicles, etc., by R. B. and T. O. Crockett of Bay City and W. S. Delery of Houston, Texas; capital \$10,000.

Beaumont—Development Company.—The Pikers Co. has been incorporated by C. H. Chambers of Beaumont, Ed. Prather, W. B. Sharp of Dallas, Texas, and L. F. Benckenstein of Detroit, Mich., to prospect for oil and other minerals; capital \$10,000.

Beaumont—Telephone System.—Southwestern Telephone & Telegraph Co. will make extensive improvements to its plant; 20,000 feet of additional cable is being laid.

Bluffdale—Cotton Gin.—Bluffdale Gin Co. has incorporated, with \$6000 capital, to operate gin; incorporators, T. M. Greenwood, Wm. Jenkins, R. L. Gibb, C. S. Watson and G. W. Oaks.

Brookeland—Saw-mill.—Southern Long Leaf Lumber Co., reported incorporated last month under Sabine, Texas, with \$25,000 capital, will erect saw-mill 50x100 feet, with a daily capacity of 50,000 feet.

Brownwood—Mill and Grain Company.—Lambertson Mill & Grain Co. has incorporated, with \$50,000 capital, to maintain mills, gins, elevators and public warehouses; incorporators, W. P. Lambertson, J. A. Austin and W. P. Logan.

Canadian—Telephone System.—Stockman Telephone Co. has increased capital from \$2500 to \$5000.

Dalhart—Water-works.—Chas. A. Smith of Denver, Col., previously reported as having been granted franchise for the construction of system of water-works to cost not less than \$30,000, has, with others, incorporated the Dalhart Water Co., with \$80,000 capital.

Dallas—Mill and Warehouse Company.—Ashley Mill & Warehouse Co. has incorporated, with \$10,000 capital, to operate mills,

gins, compresses, elevators and public warehouses; incorporators, Royal A. Ferris, Ben E. Cabell and E. M. Reardon.

Dallas—Mineral Water, Baking Powder, etc.—Hughes Bros. Manufacturing Co. has increased capital from \$100,000 to \$150,000.

Dallas—Wire and Iron Works.—Southern Wire & Iron Manufacturing Co., recently incorporated with \$40,000 capital, has erected two-story brick factory and warehouse, and is installing machinery for the manufacture of office railings, fire-escapes, elevator enclosures, iron canopies, awnings, etc. H. A. Grove is president and general manager, and T. J. Letterlee, superintendent.

El Paso—Silk Mill.—Dispatches state that Professor Carrara of El Paso, now in Amsterdam, Holland, has advised correspondents here that President Calvac of the Lyons Silk Factory, Lyons, France, will locate a silk factory in the Southwest, probably at El Paso. It is stated that 5,000,000 francs have been subscribed for establishing the American plant.

Fort Worth—Water-works, etc.—City has voted affirmatively the \$100,000 bond issue previously reported for water-works, public improvements, etc. Address The Mayor.

Fort Worth—Improvement Company.—Incorporated: Home Improvement Co., with \$10,000 capital, by W. H. Ingalls, Ed. K. Collett and J. E. Weed.

Fort Worth—Bolt and Forging Works.—Dispatches state that W. K. Fogg of Alliance, Ohio, and associates are investigating with a view of establishing foundry for the utilization of scrap iron. If location is decided upon, \$250,000 will be invested.

Houston—Oil Wells.—Incorporated: Crystal Creek Oil Co., with \$20,000 capital, to prospect for oil and other minerals, by Royal Matthews of Houston, T. J. Oliver, Rod Oliver of Dallas, Texas, and others.

Leonard—Electric-light and Ice Plant.—Electric Light & Ice Co. has increased capital from \$15,000 to \$20,000.

McGregor—Hardware.—Bradshaw Implement & Hardware Co. has been incorporated, with \$10,000 capital, by F. M. Lyon, F. P. Lyon and J. W. Bradshaw.

Menardville—Irrigation Company.—Gus Noyes, J. L. Morgan, Charles W. Alexander, W. W. Lewis and others have incorporated the Menard Irrigation Co., with \$10,000 capital, to construct dams, flumes, etc., for irrigation purposes.

Pearsall—Cotton Gin.—Pearsall Gin Co. has incorporated, with \$16,000 capital, to operate mills, gins, etc.; incorporators, C. H. Beaver, J. M. Campbell and W. F. Thompson. Pearsall—Mercantile.—C. H. Beaver and others have incorporated the Pearsall Mercantile Co., with \$35,000 capital.

San Angelo—Realty.—John A. Finch, Geo. E. Webb, William S. Kelly, C. A. Brooms and J. W. Hill have incorporated the San Angelo Improved Realty Co., with \$25,000 capital.

San Antonio—Mercantile.—Chartered: Boedker Delicatessen Co., with \$10,000 capital, by H. H. Boedker, R. H. Wester and J. D. Cockrell.

Somerville—Publishing.—William Landolt, W. C. Church, R. A. Brantley, Jr., R. C. Easley and F. H. Deves have incorporated the Somerville Publishing Co.

St. Elmo—Cotton Gin.—Antone Schaefer will rebuild cotton gin recently reported burned at a loss of \$4000.

Wichita Falls—Oil Wells.—Incorporated: Wichita Oil Co., with \$40,000 capital, by P. P. Langford, Frank Kell, J. L. Jackson and others, to prospect for oil and other minerals.

#### VIRGINIA.

Bridgewater—Feldspar Mines.—J. W. Wise has discovered feldspar deposits on his property, and contemplates developing it.

Bristol (P. O. Bristol, Tenn.)—Coal Company.—Virginia Bituminous Coal Co. has been organized to handle the output of the Virginia Iron, Coal & Coke Co. Guy Darst will be general manager.

Brookneal—Development Company.—Brookneal Development Co. has been organized by J. Coles Clay of Lynchburg, Va., and associates.

Brookneal—Publishing.—J. Coles Clay of Lynchburg, Va., and associates contemplate organizing company to publish newspaper.

Christiansburg—Woolen Mill.—C. W. Sumter and associates contemplate organizing a company to establish a woolen mill. Data regarding such an enterprise is now being sought and correspondence is invited.

Front Royal—Electric-light Plant.—City has let contract to the Ramsey Manufacturing Co., at \$5000, for the erection of proposed electric-light plant at Kenner dam on North river; also to the Lessell Water-Wheel Co.,

Springfield, Ohio, at \$3500, to erect necessary turbine wheel.

Lexington—Telephone System.—Lexington Telephone Co. contemplates making extensive improvements to its plant.

Marion—Lumber Mills.—Reports state that Burger & Campbell of Cumberland, Md., have purchased the timber rights on 36,000 acres of land in Grayson and Smith counties at \$275,000, and will at once arrange for the erection of lumber mills.

Newbern—Saw-mill, Cannery, Flour Mill, etc.—Newbern Mercantile & Manufacturing Co., reported incorporated last week with an authorized capital of \$50,000, contemplates establishing saw-mills, fruit cannery and flour mill.

Norfolk—Construction Company.—Chartered: Commercial Trust & Construction Co., with \$10,000 capital. Benjamin Lowenberg is president; H. L. Lowenberg, vice-president, and D. Lowenberg, secretary-treasurer.

Norfolk—Ice Plant.—Dispatches state that John Gier, representing the American Ice Co. of New York, is investigating with a view to establishing ice plant.

Norfolk—Coal Shippers.—Chartered: Water Front Coal Co., with \$10,000 capital. W. D. L. Waldrige of New York is president; Hugh N. Page of Norfolk, vice-president and general manager, and O. W. Guy of Norfolk, secretary-treasurer; office, Newton's wharf, 3-17 Nivison street.

Petersburg—Publishing.—Chartered: Trade Journal Publishing Co., with an authorized capital of \$10,000. William N. Roper is president; Hugh M. McAllister, vice-president, and Samuel W. Venable, secretary-treasurer.

Portsmouth—Bagging Factory.—Norfolk Bagging & Tie Co., Norfolk, Va., will establish bagging factory, and contract has been let to Alsop & Pierce, Newport News, Va., for erection of building 90x200 feet at a cost of \$7500 on Pier 5 of the Seaboard Air Line property; building will be leased to the Norfolk company.

Richmond—Shoe Factory.—W. H. Miles Shoe Co. has been incorporated, with an authorized capital of \$500,000, by Walter H. Miles, president; Carter B. Snow, vice-president, and John B. Metzger, secretary-treasurer.

#### WEST VIRGINIA.

Bellington—Steel Plant.—It is reported that Jerome Stewart of Buckhannon, W. Va., and S. M. Neece of Pittsburgh, Pa., contemplate establishing steel-plate mill. Board of Trade was previously reported as negotiating for the establishment of this plant.

Cameron—Window-glass Works.—Patterson Window Glass Co. has been incorporated, with an authorized capital of \$30,000, by R. E. Crawford, S. E. Leech, C. L. Nichols, William C. Jackley and others. Plant will have an annual capacity of 50,000 boxes of window glass.

Charleston—Telephone System.—Charleston Home Telephone Co. contemplates expending \$15,000 in improving its system, including the construction of trunk line to Columbus, Ohio, and the building of short toll lines into the Kanawha coal fields.

Grant County—Oil and Gas Wells.—It is reported that Daniel Davies of Marietta, Ohio, and associates have purchased from the Guyandotte Coal Land Association 21,000 acres of land in Grant county containing oil and gas, and will at once arrange for its development.

Huntington—Wharf and Storage Company.—Dr. R. E. Vickers, J. C. Carter, C. L. Ritter and R. M. Clouston have incorporated the Huntington Wharf & Storage Co., with \$25,000 capital.

Huntington—Pottery.—Union Potteries Co. of East Liverpool, Ohio, and Pittsburgh, Pa., previously reported as having made proposition to city to establish pottery plant of seven kilns at a cost of \$140,000, has completed negotiations, and will at once arrange for the erection of main factory building, 150x500 feet, on site recently purchased.

Huntington—Steel-rail Mill.—Union Rail Co. will install equipment in its plant for rolling brake beams and special shapes in addition to light section rails. Company also has under consideration the building of a 30-foot furnace for reducing heavy standard section re-rolling rails to weights of 56 and 60 pounds per yard.

Mannington—Tannery.—Incorporated: Marion Tanning Co., with an authorized capital of \$50,000, for manufacturing and tanning leather; incorporators, C. E. Jolliffe, William H. Turbee, V. T. Clayton and associates. Company has purchased plant of the Southern Tanning Co.

Point Pleasant—Steam Laundry.—W. H. Sullivan, J. W. C. Heslop of Point Pleasant, W. C. Petet of Huntington, W. Va.; S. W.

Swisher, J. L. Whitten, A. L. Boggess and associates have organized company to operate a steam laundry.

Point Pleasant—Street Paving.—City has voted affirmatively the proposed issuance of \$15,000 of bonds for street paving. Address The Mayor.

Tenmile—Land Company.—V. L. Horner, J. E. Boggess, D. E. Mason, J. S. Griffin and associates have incorporated the Tenmile Land Co., with \$10,000 capital.

Welch—Lumber Company.—W. W. Whyte, W. L. Taylor and associates have incorporated the Troutman-Gravelly Lumber Co., with an authorized capital of \$9000, to deal in timber lands.

Welch—Construction Company.—M. N. Moorman, J. P. Moorman, John B. Gills of Lynchburg, Va.; S. L. Layne and J. L. Dramer of Randolph, Va., have incorporated the Moorman Bros. Company with \$25,000 capital to conduct contracting and construction business.

#### INDIAN TERRITORY.

Bartlesville—Oil and Gas Wells.—Aaron Fell of Bartlesville, Kennedy Marshall, Eliza T. Marshall of Butler, Pa., and C. K. Totten of Allegheny, Pa., have incorporated the Marshall-Fell Oil & Gas Co., with \$200,000 capital.

Hartshorne—Coal-mining and Development Company.—Pound's Valley Coal Mining & Development Co., reported organized last week for the establishment of townsite on 5000 acres of land, will also mine coal, capacity to be 1000 tons per day. F. P. Kendrick is engineer in charge.

Hewitt—Cotton Gin.—F. H. Whaley will erect cotton gin.

Muskogee—Cigar Factory.—E. C. Mays of Abilene, Texas, is erecting cigar factory.

Muskogee—Canning Factory.—Muskogee Canning Factory has been incorporated, with \$5000 capital. J. O. Callahan is president; C. W. Turner, vice-president, and J. K. Edmunds, secretary-treasurer.

Muskogee—Bridge.—Chartered: Choska Bridge Co., with \$50,000 capital, to construct a bridge over the Arkansas river.

Muskogee—Electric-light Plant.—Muskogee Electric Co. has been incorporated, with \$100,000 capital. Ira L. Reeves is president; J. A. Connolly of Titusville, Pa., vice-president; A. C. Trumbo, secretary, and N. A. Gibson, treasurer.

Pauls Valley—Electric-light Plant.—Thompson Bros. will rebuild electric-light plant recently burned.

South McAlester—Cotton Gin.—Chartered: Mounds Gin Co., with \$10,000 capital.

South McAlester—Gas and Oil Development.—Central Oil, Gas & Development Co. has been incorporated, with \$1,000,000 capital. A. C. Springs is president; J. T. Miller, vice-president; E. V. Williamson, secretary, and W. E. Brown, treasurer.

#### OKLAHOMA TERRITORY.

Chandler—Water-works.—Reports state that W. C. Swanwick has contract to construct \$50,000 water-works system.

Enid—Ice Plant.—Enid Creamery Co., recently incorporated with \$5000 capital, will erect plant for manufacturing ice.

Enid—Water-works.—City has accepted plans by Barnes & McDonald of Kansas City, Mo., for the construction of proposed water-works system at a cost of \$85,000.

Fletcher—Cotton Gin and Grist Mill.—H. A. Seymour, S. J. Smith, W. P. Pierce, J. A. Collier and R. J. Moffitt have incorporated the Fletcher Gin & Mill Co., with \$6000 capital.

Frederick—Telephone System.—Incorporated: Frederick Telephone Co., with \$3500 capital, by A. N. Campbell, J. M. Bellamy and M. F. Merrill of Asher, O. T.

Fort Cobb—Town Company.—Nora G. Hazlett, W. M. Hazlett and R. Kearse have incorporated the Fort Cobb Town Co., with \$20,000 capital.

Oklahoma City—Electric Company.—L. A. LeClair, B. F. Leggett and Charles E. Johnson have incorporated the LeClair Electric Co., with \$10,000 capital.

Oklahoma City—Sewerage.—City contemplates constructing a system of storm sewers, draining the entire city, bridging ditches, etc., at an estimated cost of \$200,000. Address The Mayor.

Oklahoma City—Power-house.—Epworth University has let contract for the erection of \$5000 power-house.

Pond Creek—Grain Elevator.—Pond Creek Mill & Elevator Co. will erect 100,000-bushel elevator.

Shawnee—Ice Plant.—Reports state that the Anheuser-Busch Brewing Association of

Cincinnati, Ohio, will erect ice plant with a daily capacity of 100 tons.

Shawnee—Oil, Gas and Mineral Company.—Indian Oil, Gas & Mineral Co. has been incorporated by D. W. Marquis, C. A. Baker, E. F. Scott and associates; capital \$500,000.

Wakita—Grain Elevators.—Farmers' Exchange Association will erect a line of grain elevators in Grant county.

Waurika—Grain Elevator.—Waurika Elevator Co. contemplates erecting grain elevator.

#### BURNED.

Bridgeport, Ala.—M. B. Clemens' saw and planing mill; loss \$10,000.

Camden, S. C.—Lafayette Hall, Scott Brown, proprietor; loss \$10,000.

Colonial Beach, Va.—Jail Building. Address County Clerk.

Columbia, S. C.—Sligh & Allen's department store; loss \$80,000. Building owned by Mrs. C. C. Habenicht; loss \$14,000.

Ensley, Ala.—Smet-Solvay Company's tar plant.

Florence, Ala.—Alabama State Co.'s mill.

Hazlehurst, Ga.—J. E. Varn's saw-mill, grist mill and cotton gin.

Omega, Fla.—Squire & Son's planing mill and dry-kiln; loss \$100,000.

Queenstown, Md.—S. E. Kirby's cannery.

Savannah, Ga.—J. C. Slater's store building at 228-232 West Broad street; loss \$12,000.

Wichita Falls, Texas.—Home Steam Laundry; loss \$2500. Wichita Bottling & Candy Co.'s works; loss \$3000. Building owned by T. B. Noble; loss \$1500.

#### BUILDING NOTES.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Aliceville, Ala.—Bank Building.—Aliceville Bank & Trust Co., John T. Cochrane, president, will erect brick bank building.

Alva, O. T.—Courthouse.—Chartered: Woods County Building & Investment Co. with \$60,000 capital to erect county courthouse. J. J. Huddart prepared the plans.

Anniston, Ala.—Store Building.—Russell Bros. contemplate erecting store building.

Arcadia, Fla.—Bank Building.—First National Bank has let contract to F. C. Ralls for the erection of proposed \$25,000 bank building.

Asheville, N. C.—Hotel.—R. S. Smith has prepared plans for a six-story hotel, 170x100 feet, to be erected by the Smith estate at a cost of about \$200,000.

Augusta, Ga.—Warehouse.—McKenzie & Son have contract to erect city warehouse; structure to be 75x136 feet.

Charleston, S. C.—Hotel.—Charleston Hotel Co. has been organized with \$30,000 capital, and S. H. Wilson president, to improve the Charleston Hotel, which has been leased to Riddick & Byrns.

Charleston, S. C.—Hotel.—Samuel H. Wilson, P. H. Gadsden and William Austin have incorporated the Charleston Hotel Co., with \$30,000 capital.

Charleston, S. C.—Library Building.—Sams & Carter have prepared plans for the erection of \$5000 Carnegie library at Benedict College; structure to be 52x53 feet, of stone and brick, with tile roof.

Charleston, S. C.—Hospital.—Charleston Medical Society has commissioned William M. Aiken, of Aiken & Bruner, New York city, to prepare plans for proposed hospital.

Chillicothe, O. T.—School Building.—Government has authorized the erection of an additional school building to cost \$30,000 for the Chillicothe Indian School. S. M. McCowan is superintendent.

Conway, S. C.—School Building.—H. E. Bonitz, 15 Princess street, Wilmington, N. C., is preparing plans for proposed school building.

Crowley, La.—Warehouse.—It is reported that Jones Bros., proprietors of Jones Bros.' rice mill, contemplate the erection of rice warehouse.

Culpeper, Va.—Hotel Improvements.—J. M. Fraley has purchased the Waverly Hotel at \$6000, and will enlarge and improve same.

Dallas, Texas.—Hotel.—Hotel Cliff Association has been incorporated by Wirt Davis, L. A. Stemmons, T. S. Miller, Jr., Leslie Wagner and others with \$5000 capital to operate hotel.

Decatur, Ala.—Warehouse.—Scruggs & Echols are having plans prepared by A. C. Karney for the erection of two-story brick warehouse, 70x140 feet, to cost \$30,000, to replace structure reported burned last week.

Enid, O. T.—Business Block.—White, Goulding & Ferman will erect two-story brick and stone business block, 50x125 feet.

Fayetteville, N. C.—Hospital.—St. Luke's Hospital Co. has been incorporated, with an authorized capital of \$50,000, by J. H. Marsh, Laura G. Marsh and W. H. Marsh. Three-story building, 40x150 feet, will be erected after plans by E. J. Humphrey.

Fayetteville, N. C.—Hospital.—St. Luke's Hospital Co. has been incorporated, with an authorized capital of \$50,000, by J. H. Marsh, Laura G. Marsh and W. H. Marsh.

Fort Hill, O. T.—Dormitory.—George E. Hopper, Arkansas City, Kan., has contract to erect stone dormitory to cost \$15,000 at the Kiowa Indian agency.

Gadsden, Ala.—City Hall.—City has voted affirmatively the \$25,000 bond issue previously reported for the erection of city hall. Address The Mayor.

Gary Springs (not a postoffice), Ala.—Dr. T. P. Gary of Selma, Ala., and associates will organize company to develop Gary Springs as a health resort. A \$25,000 hotel will be erected.

Granger, Texas.—School Building.—City contemplates the issuance of bonds for the erection of school building. Address The Mayor.

Greensboro, N. C.—Office Building.—Security Life & Annuity Co. has purchased site on which to erect six-story brick and stone building.

Greenville, Miss.—School Building.—School Board has accepted plans by Architect Kenneth McDonald of Louisville, Ky., for the erection of proposed \$25,000 high-school building.

Greenville, Miss.—Hospital.—Greenville King's Daughters, Circle No. 2, has let contract to J. W. Barnes & Co. at \$16,500 for the erection of proposed hospital.

Greenville, S. C.—Depot.—Jameson & Morris have contract to erect depot for the Southern Railway, previously reported; structure to be of brick and stone and cost \$30,000. Frank Milburn of Columbia, S. C., prepared the plans.

Guyton, Ga.—Warehouse.—S. H. Morton has had plans prepared for the erection of cotton warehouse of brick.

Houston, Texas.—Dwelling.—D. A. Japhet will erect \$8000 residence.

Hyattsville, Md.—School Building.—Contract previously reported as having been awarded to C. C. Wheelock for the erection of school building has been rescinded, and bids will again be asked. Address Building Committee, care of Frederick Sasser, school examiner of Prince George's county, Hyattsville.

Ilmo (not a postoffice), Mo.—Roundhouse, Coal Chutes, etc.—St. Louis & Southwestern Railway is building brick roundhouse, turntable, coal chutes, cinder pits, etc.; M. L. Lynch, chief engineer, Tyler, Texas.

Indianola, I. T.—Dormitory.—Trustees of Indianola Synodical College will erect two-story dormitory, and bids for construction are now being invited.

Kansas City, Mo.—Dwelling.—Hucke & Sexton have completed plans for J. Logan Jones' proposed \$35,000 residence.

Knoxville, Tenn.—Dwelling.—W. C. Dewey has let contract to R. F. Creeson for the erection of residence to cost \$13,500.

Little Rock, Ark.—Office Building.—S. M. Welch, St. Louis, Mo., has purchased site on which to erect eight-story office building.

Mangum, O. T.—School Building.—City has issued \$20,000 of bonds for the erection of high-school building. Address The Mayor.

Marion, S. C.—Depot.—It is reported that the Atlantic Coast Line Railroad will erect \$10,000 passenger station. J. R. Kenly, Wilmington, N. C., is general manager.

Memphis, Tenn.—Office Building.—Dr. W. B. Rodgers has let contract to Fred B. Young for remodeling building at Jefferson street and Center alley and the erection of one-story brick addition; cost \$17,000. Shaw & Pfeil prepared the plans.

Memphis, Tenn.—College.—It is reported that the Macon & Andrew Business College of Meridian, Miss., contemplates building \$100,000 college building.

Meridian, Miss.—Lodge Building.—Meridian Elks' Building Association has been incorporated by C. M. Rubush, L. H. Arky and others with an authorized capital of \$20,000.

Meridian, Miss.—Dwelling.—Mrs. T. Rosenbaum will erect brick residence, 150x158 feet, to cost \$20,000.

Mobile, Ala.—Lodge Building.—E. E. Ward was lowest bidder at \$13,500 for rebuilding Pythian Castle; Watkins & Hutchison prepared the plans.

Moultrie, Ga.—School Building.—G. W. Milligan has contract at \$18,000 for the erection of proposed school building.

Mt. Calm, Texas.—Hall.—Mt. Calm Auditorium Co. has been organized and will erect two-story building for lodge and assembly purposes.

Nashville, Tenn.—Auditorium.—Meharry Medical College will erect \$5000 brick auditorium.

Nashville, Tenn.—Office Building.—Corner Realty Co., reported incorporated last week with \$150,000 capital, will erect 12-story fire-proof building at a cost of about \$400,000. It is reported that the Westlake Construction Co. of St. Louis, Mo., will be awarded contract for construction.

Natchitoches, La.—Jail.—P. E. Prudhomme, president Police Jury, will open bids August 29 for the erection of jail building. Plans and specifications can be seen at the Police Jury room, Natchitoches, or in the office of Wm. S. Hull, architect, Jackson, Miss., who will furnish bidders with proposal sheets. Certified check for \$1000 must accompany each bid.

New Decatur, Ala.—City Hall.—City has accepted plans by Cowell & Love for city hall building, previously reported, to be erected at a cost of \$7000, and bids for construction will shortly be asked. Address The Mayor.

Norfolk, Va.—Business Building.—Frank R. May has contract to erect proposed \$100,000 building to be occupied by the Board of Trade and Business Men's Association.

Oklahoma City, O. T.—Business Block.—John T. Brickner has contract to erect three-story brick business block to cost \$10,000 for Mrs. Sneed.

Orlando, Fla.—Business Building.—Edinfield Building & Manufacturing Co. of Tampa, Fla., has contract to erect two-story brick building, 86x100 feet, to cost \$12,000, for Elijah Hand.

Owings Mills, Md.—Power-house.—Frank W. Keating, M.D., superintendent Maryland Asylum and Training School for Feeble-Minded, will open bids August 10 for the erection of power-house, in accordance with plans and specifications on file at office of superintendent, also at office of Ellicott & Emmart, 323 North Charles street, Baltimore, Md. Board of Visitors reserves usual rights.

Paducah, Ky.—Mausoleum.—James P. Smith has had plans prepared by Architect Lassiter for \$50,000 mausoleum to be built in Oak Grove.

Perry, O. T.—City Hall and Fire Station.—City has accepted plans by C. F. Bobbitt for the erection of proposed city hall and fire station.

Perry, O. T.—Bank Building.—First National Bank has let contract to the Oklahoma Stone Manufacturing Co. for the erection of its proposed building.

Piedmont, W. Va.—Store Building.—Piedmont Grocery Co. has let contract to E. J. Fredlock for the erection of four-story brick building, 50x130 feet, to be equipped with steam heat, electric lights, etc.

Pine Bluff, Ark.—Association Building.—Contracts for remodeling the Merrill Institute Building as Young Men's Christian Association have been let to Smith & O'Neill for brick and woodwork, Pine Bluff Plumbing Co. for plumbing, and Luck Bros. of St. Louis, Mo., for decorating.

Princess Anne, Md.—Courthouse.—W. P. Pusey & Son have contract at \$28,451 for the erection of Somerset county's proposed courthouse.

Rockwell, N. C.—Factory Building.—Rockwell Furniture Co. wants estimates on construction of factory building 40x75 feet, two stories; wants bids for frame and or brick.

Roxboro, N. C.—Store Building.—J. M. Black will erect brick store building.

Savannah, Ga.—Bank Building.—National Bank of Savannah has had plans prepared by H. W. Witcover for both a five and ten-story structure for its proposed building, and bids will be asked on both sets of plans.

Shelby, N. C.—Business Block.—J. P. Delinger & Co., reported last month as to erect brick business block, are having plans prepared by J. M. McMichael of Charlotte, N. C., for building 50x100 feet, to cost \$5000.

Shreveport, La.—Theater.—James E. English of Henderson, Ky., is arranging for the erection of \$50,000 theater.

South McAlester, I. T.—Warehouse.—J. E. Jones has had plans prepared for the erection of four two-story brick warehouses, 25x140 feet.

South McAlester, I. T.—Hotel.—McKibban & McKibban are preparing plans for proposed \$100,000 Bushy Hotel building, to be 150x150 feet.

Spartanburg, S. C.—Store Building.—F. L. Liles has let contract for the erection of three-story store building 50x100 feet.

Spartanburg, S. C.—Business Building.—Jamison & Morris, Greenville, S. C., have contract to erect \$12,000 brick business building.

Spartanburg, S. C.—Store Building.—J. F. & J. B. Cleveland are having plans prepared by Profit & McNeal for improvements to store building to cost \$6000.

Spray, N. C.—Office Building.—American Warehouse Co. will erect two-story brick office building containing 5000 feet of floor space.

Sutton, W. Va.—Jail and Residence.—E. W. Hefner, clerk of Braxton county, will receive sealed bids until August 22 for furnishing all material and labor required for the erection and completion of the jail work; also for erecting and completing jail building and sheriff's residence, in accordance with plans and specifications on file in the county office and in the office of Holmboe & Lafferty, Clarksburg, W. Va. Certified check for \$2500, drawn upon the First National Bank of Sutton, must accompany each bid. Plans can be obtained upon a deposit of \$25; usual rights reserved.

Sweetwater, Tenn.—Church.—James May and D. L. Smith, committee, will open bids August 15 for the erection of brick edifice for the First Baptist Church; usual rights reserved.

Talladega, Ala.—Barn and Stable.—W. M. Franks and W. E. Dickinson will erect two-story brick livery barn and sales stable, 50x200 feet, to cost \$10,000.

Temple, O. T.—Store Building.—Leader Hardware Co. will erect two-story brick store building, 70x75 feet.

Thorndale, Texas.—Store Building.—W. H. Rivers of Elgin, Texas, has let contract for the erection of brick store building, 35x80 feet.

Vidalia, Ga.—School Building.—Grandy & Jordan, Greenville, S. C., have contract to erect proposed \$10,000 school building.

Washington, D. C.—Dwelling.—Ben R. Bradford has let contract to John McGregor for the erection of three-story brick residence to cost \$30,000.

Washington, D. C.—Church.—A. Davis, Jr., has contract to erect proposed edifice for St. Mark's Lutheran Church after plans by A. O. Von Herbulis; seating capacity 300.

Winder, Ga.—Stable.—Wood & Cannon are rebuilding livery stable recently burned.

Winder, Ga.—Warehouse.—Mek, Rogers & Camp have permit to erect brick warehouse, 50x100 feet.

Yazoo City, Miss.—Church.—Glass & Morford have contract to erect proposed edifice for the Baptist church.

## RAILROAD CONSTRUCTION.

### Railways.

Alexandria, Va.—It is reported that the Pennsylvania Railroad will construct large railroad yard near Alexandria. W. H. Brown is chief engineer, with headquarters at Philadelphia, Pa.

Atlanta, Ga.—Reported that a survey has been made for the proposed railroad from Andalusia to Pensacola, Fla., 80 miles, in which plan Hoke Smith and A. B. Steele of Atlanta are interested.

Bay Minette, Ala.—It is reported that W. J. Oliver of Knoxville, Tenn., has secured the contract for the construction of 62 miles of railroad for the Bay Minette & Fort Morgan Railroad, from Bay Minette to Fort Morgan.

Birmingham, Ala.—President G. B. McCormack of the Towley Mining Co. writes the Manufacturers' Record that a branch railroad about two miles long will be built probably by the company's own forces, to connect mines in Walker county with the Northern Alabama Railway, part of the Southern Railway system.

Boonford, N. C.—Mr. W. W. Chapman, general superintendent of the Estate Electric Co., in a letter to the Manufacturers' Record confirms the report that grading is now in progress on the proposed line from Boonford to Burnsville. The road will be standard gauge, and will afford transportation facilities for the output of the National Graphite Co. of Burnsville, N. C. The officers of the company are Geo. A. Miles, president; E. F. Watson, vice-president; W. W. Chapman, secretary, treasurer and general superintendent; directors, G. D. Miles of Warsaw, Ind.; E. F. Watson of Burnsville, N. C.; R. P. Gibbs of Burnsville, N. C., and W. W. Chapman of Boonford, N. C.

Boston, Mass.—Mr. Charles H. Hempstead, civil and electrical engineer at Boston, is reported to be investigating with the view to constructing an electric railway from Scanton, Miss., to Bay St. Louis, a distance of 48 miles. Mr. Hempstead is reported as

saying that nothing definite has been decided regarding the enterprise.

Chicago, Ill.—Mr. James Dun, chief engineer of the Atchison, Topeka & Santa Fe Railway system, in a letter to the Manufacturers' Record, denies the report that the Santa Fe Company contemplates an extension from Owasso to Tulsa, I. T.

Chicago, Ill.—The Illinois Central Railroad has awarded the contract for grading on its line between Jackson and Tougaloo, Miss., to Robert Hamilton of Jackson, Miss. H. U. Wallace is chief engineer.

Chillicothe, Texas.—Mr. C. H. Webster, chief engineer of the Orient, is reported as saying that he has about completed the organization of his forces at Sweetwater, and that tracklaying north of that city will be pushed as rapidly as possible.

Dalhart, Texas.—Mr. J. H. Conlen, president of the Oklahoma, Texas & New Mexico Railroad Co., informs the Manufacturers' Record that "owing to a hitch in the negotiation of bonds, the company has postponed its operation for the present."

Dublin, Ga.—It is reported that work will soon begin on the Dublin & Southwestern Railroad from Rentz to Eastman. J. P. Pughley is chief engineer.

Elkins, W. Va.—Contract for building that part of the Coal & Coke Railroad between Copen Run and Burnsville has been awarded Joseph Fucey of Richwood. W. H. Bowers is general manager of the road at Elkins.

Fort Worth, Texas.—A meeting of several railroad promoters has been held in the interest of the proposed line from Spring to Beaumont, 52 miles.

Frostburg, Md.—The Myersdale & Salisbury Railway has been incorporated to construct an electric railroad from Garrett, Pa., to Frostburg, Md., 25 miles. Parties from Pittsburgh are the backers, and contracts aggregating over \$500,000 have been let, Thomas Deegan & Co. of Philadelphia securing the main contract, and 12 miles of construction will be done by J. J. Houghton of Allegheny, Pa. The officers of the railway company are Orran W. Kennedy of Uniontown, Pa., president; H. L. Borland, treasurer, and W. J. Ward, secretary. The directors are Homer J. Lindsay, William Gibson, J. W. Pryale and S. M. Graham.

Frostburg, Pa.—The Myersdale & Salisbury Railway will, it is reported, have been incorporated to construct an electric railroad from Garrett, Pa., to Frostburg, Md., 25 miles. Parties from Pittsburgh are the backers.

Gainesville, Ga.—The main line of the Gainesville, Jefferson & Southern Railroad and the Jefferson Branch were sold to a company composed of Gainesville and Savannah capitalists, and the 10 miles from Monroe to Social Circle to the Georgia Railroad. The entire line will be made standard gauge, and it is expected some extension will be constructed. Thos. K. Scott is general manager of the Georgia Railroad, at Augusta, Ga.

Greenville, Miss.—The Greenville & Leland Electric Railroad Co. has been incorporated to build a line from Greenville to Leland. The incorporators are Morris Rosenstock, Henry Crittendon, John L. Hebron, Jr., Nathan Goldstein of Greenville and E. J. Turner and J. W. Thompson of Leland.

Guthrie, O. T.—The St. Louis, El Reno & Western Railway will, it is reported, be extended 80 miles from El Reno to connect with the Kansas City, Mexico & Orient Railway, six miles west of Cordell. H. A. Genuin is chief engineer.

Hagerstown, Md.—The plan to construct an electric road from Hagerstown to Waynesboro, Pa., it is reported, has been revived by Pittsburgh and Cumberland capitalists.

Houston, Texas.—Mr. John H. Kirby, president of the Kirby Lumber Co., informs the Manufacturers' Record that there is no truth in the report that its company is working on a plan to secure an extension of the Frisco system from Paris to Beaumont, Texas.

Kansas City, Mo.—The American Investment & Development Co. has applied for a charter under the laws of the District of Columbia. Gen. Nelson A. Miles is president; Mr. Coney, vice-president and general manager; Fred R. Waters, Kansas City, secretary, and John R. Mulvane, Topeka, treasurer. The company expects to build, it is reported, an electric line from Kansas City to Jefferson City, to Springfield, and then across the western portion of the State back to Kansas City.

Live Oak, Fla.—The Live Oak & Perry Railroad is reported to have laid part of the track on an extension from Hudson to Perry, Fla., 30 miles.

Livingston, Tenn.—It is reported that work will begin about September 1 on the proposed

Overton County Railroad. P. Armitage is president, and B. Armitage, chief engineer, 3700 Locust street, Philadelphia, Pa.

Louisville, Ky.—Reported that the Louisville & Nashville Railroad Co. will build a line from Myrtlewood, Ala., to Meridian, Miss., about 40 miles. R. Montfort is chief engineer.

Louisville, Ky.—Mr. R. Montfort, chief engineer Louisville & Nashville Railroad Co., informs the Manufacturers' Record that he knows nothing of a plan to build a new line from Myrtlewood, Ala., to Meridian, Miss.

McKinney, Texas.—A meeting has been held, it is reported, in the interest of the proposed electric railway between McKinney and Bonham. Committees were appointed to secure right of way, and it is expected that work will begin at an early date. H. Woodson is one of the promoters.

McRae, Ga.—Mr. E. F. McRae of McRae, Ga., writes the Manufacturers' Record that a charter has been filed for the McRae & Dublin Railway, which is to extend between the two points, a distance of 35 miles. The road will connect with the Seaboard Air Line about one mile from McRae, and contract for engineering will be let August 6, and for grading and other work on this portion as soon as possible. After one mile is completed the work on the other part will be taken up.

Meridian, Miss.—W. B. Hard & Sons have secured the contract for grading the extension of the joint house tracks of the Southern and Mobile & Ohio. Work has begun.

Meridian, Miss.—The Coast Railroad Co. has been organized, with \$100,000 capital, to build an electric railroad connecting all of the Gulf coast towns.

Mt. Airy, N. C.—Mr. S. A. White, superintendent of the Mt. Airy & Eastern Railway, informs the Manufacturers' Record that a preliminary survey has been made to timber land in Patrick county, Virginia, but that plans for construction have not yet been completed.

Nashville, Tenn.—President H. M. Gross of the Nashville & Columbia and Nashville & Gallatin electric railways is quoted as stating that about September 1 contracts to build 55 miles of line will be let. W. D. Miller of Sewickley, Pa., is chief engineer.

New Orleans, La.—Concerning a recent report that work was about to begin, Gen. F. F. Myles, 100 Common street, writes the Manufacturers' Record that he is not yet ready to start construction on the proposed Teche Electric Railway.

New Orleans, La.—It is reported that work will soon begin on the proposed electric railway from New Orleans to Bayou Barataria, 17 miles. J. F. Jolly of Pittsburg and Uri Beach of New Orleans are the promoters.

Oakland, Md.—It is reported that work has begun on the branch of the Preston Railroad Co. from its mills at Crellin, near Oakland, to the headwater of the Yough river. It is reported that the line may be extended to Parsons, on the line of West Virginia Central.

Parkersburg, W. Va.—President F. O. Havener of the Pickens & Addison Railroad is quoted as saying that it is proposed to build an extension from Little Sugar to Back Fork, 10 miles.

Parsons, W. Va.—It is reported that R. F. Whitmer of Philadelphia, Pa., is having another survey made for a railroad from Parsons down the Cheat river to Rowlesburg. The line, if built, will form a connecting link between the Coal & Coke Railroad and the projected West Virginia Northern Railroad, to run from Kingwood, W. Va., to Pittsburg, Pa.

Petersburg, Va.—It is reported that a survey for an electric railway is being made from Petersburg to Albemarle Sound, in North Carolina, the proposition being backed by Virginia capitalists.

Portsmouth, Va.—Mr. W. W. Gwathmey, Jr., chief engineer of the Seaboard Air Line Railway, writes the Manufacturers' Record confirming the report that its company will lay heavier rails on its line between Durham and Henderson, N. C.

Quitman, Miss.—The Mississippi & Eastern Railroad is reported to have finished six miles of line between Quitman and Carmichael and is said will extend from the latter point to Melvin, 14 miles. It is also stated that a further extension of 40 miles to Jackson, Miss., may be made. James W. Glynn is chief engineer.

Sequin, Texas.—D. L. Bourland of St. Louis and Chicago proposes to build, it is reported, a standard-gauge road to Sequin from a point on the International & Great Northern and Missouri, Kansas & Texas, between New Braunfels and San Marcos.

South McAlester, I. T.—Col. P. W. Dean is

reported as saying that construction will begin in about three weeks on the Kansas City, Oklahoma & Houston Railroad, starting at Red River and working towards Honey Grove.

South McAlester, I. T.—Col. P. W. Bean, one of the promoters of the Kansas City, Oklahoma & Houston Railroad, is reported as saying that construction will begin in about three weeks on the line at Red River, the graders working toward Honey Grove, Texas. M. J. Smith is chief engineer.

Springfield, Mo.—J. B. Polley, chief engineer of the North & South Arkansas Railroad, is reported as saying that surveys have been made from Raven Springs to Smithton, Ark.

St. Augustine, Fla.—Mr. J. H. Parrott, vice-president of the Florida East Coast Railway, in a letter to the Manufacturers' Record, confirms the report that the company has under consideration an extension from Miami to Key West, and that survey is now being made.

St. Louis, Mo.—The Little Rock & Monroe Railroad, C. B. Johnson of St. Louis, president, is reported to have completed 25 miles of track on its line from Felsenthal, Ark., to Monroe, La. Construction is being continued.

St. Louis, Mo.—President A. Strauss, Chemical Building, it is reported, says that the Perla Northern Railroad has graded 11 miles of line from Perla to Magnet, Ark., and that five miles of track are completed from Perla to the crossing of the Rock Island Railroad. The line is to extend to Whittington, 23 miles from Perla, and it is proposed to finally build to Waldron, Ark. V. I. Nettleton is chief engineer. Work is being done by the company.

St. Louis, Mo.—It is rumored that the Missouri, Kansas & Texas Railway is making arrangements to build a branch railroad from Mokane, Mo., through Fulton and Columbia to Booneville, where it will rejoin the present main line. S. B. Fisher is chief engineer.

St. Louis, Mo.—It is reported that the Washburn Railroad will build a line from Cumberland, Md., into Georgetown, where it will construct terminals. W. S. Newhall is chief engineer.

Suffolk, Va.—The Suffolk Lumber Co. will, it is reported, build a short railroad from a point on the Norfolk & Western Railway one mile east of Disputanta Station, across the Blackwater river to reach timber land recently purchased.

Tallahassee, Ga.—It is reported that plans are being agitated for the construction of a railroad from Tallahassee to Rockmart via Buchanan, the line to be 22 miles long. The Commercial Club and Vanderbilt Railroad are interested.

Tallulah Falls, Ga.—The Tallulah Falls Railway has been extended from Wiley to Clayton, Ga., seven miles, and is being further continued via Rabun Gap, 20 miles, to Franklin, N. C. Joel Mable is chief engineer.

Timpson, Texas.—Mr. M. J. Ragley, secretary of the Timpson Northwestern Railway, writes the Manufacturers' Record that the Grigsby Construction Co. has been awarded the contract to bring the grades on its line up to 1 per cent. About 150,000 yards of earth will be moved.

Tremont, La.—The Tremont & Gulf Railroad is reported to have completed an extension from Eros to Chatham, La., eight miles.

Tyler, Texas.—The St. Louis Southwestern Railway will, it is reported, build an extension to the Sabine river and either Orange or Beaumont. M. L. Lynch is chief engineer.

Tyler, Texas.—In a letter to the Manufacturers' Record, Mr. W. L. Lynch, chief engineer of the St. Louis Southwestern Railway system, confirms the recent report that the company is constructing an extensive yard at Ilmo, Mo., in connection with Thebes bridge. The grading, in charge of McArthur Bros., is about completed, and balance of work is being done by company's forces.

Union, S. C.—Mr. George M. Wright, general manager of the Union & Glen Springs Railroad, is reported as saying that the steam and electric line which the company is building is between Union and a point on the Seaboard Air Line near Carlisle, S. C., 16 miles; also that an extension from Buffalo to Spartanburg, 25 miles, is projected.

Union, W. Va.—E. C. Vincent, chief engineer for the recently-incorporated Monroe Central Railroad, is quoted as saying that the line will be constructed from Ronceverte to Glenlyn, W. Va., 67 miles, and that a branch 35 miles long will be built to Sweet Springs. The survey is now being made.

Urbana, Va.—The Richmond, Rappahannock & Eastern Railroad is the name of the line to be built from Urbana to Richmond.

C. O. Burns of New York is interested in the enterprise.

Urbana, Va.—It is reported that a railroad will be built from Urbana to Richmond, about 50 miles, by C. O. Burns of New York and others.

Washington, D. C.—Concerning the report that the Southern Railway would build an extension from Wards to Saluda, S. C., an officer of the Southern Railway writes the Manufacturers' Record that no such survey has been made by the company, and he knows of no intention by it to build such a line.

Washington, D. C.—It is reported that the Southern Railway will double-track its line between Clifton and Oultewah Junction, Tenn., work to begin at once. W. H. Wells is chief engineer.

Washington, D. C.—Mr. W. H. Wells, chief engineer of the Southern Railway, informs the Manufacturers' Record that he knows nothing of the plan to build a short connecting link near Richmond to facilitate the operation of trains around that city, connection to be made at Granite.

Wilmington, N. C.—It is reported that the Atlantic Coast Line Railroad Co. has been granted permission to purchase and operate the Jacksonville Southwestern Railroad between Jacksonville and Newberry, Fla. It is also stated that the road may be extended into Western Florida, possibly to Tallahassee. E. B. Pleasants is chief engineer of the Atlantic Coast Line at Wilmington.

Winchester, Ky.—W. M. Beckner is quoted as saying that surveys are made and right of way guaranteed for the proposed Mt. Sterling Short Line, to extend about nine miles from Mt. Sterling to Indian fields, connecting with the Lexington & Eastern Railway.

#### Street Railways.

Adair, I. T.—A company composed principally of Pennsylvania capitalists has been incorporated, it is reported, by W. T. Hutchings, to construct an electric line from Adair, I. T., to Blackwell, O. T.

Birmingham, Ala.—The Birmingham Railway, Light & Power Co. will issue \$10,000,000 of bonds, part of which will be used to carrying out improvements now in contemplation.

Knoxville, Tenn.—The Knoxville Traction Co. will, it is reported, expend \$500,000 in improving its system, including the building of a line through West Knoxville.

Oklahoma City, O. T.—A deed of trust has been filed by the Oklahoma City Railway Co. to the Iron City Trust Co. to secure the payment of \$1,000,000 for extending its street railway system.

### MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Boiler.—See "Water-works Equipment."

Boiler.—See "Engine and Boiler."

Boiler.—G. H. Hall, Red Springs, N. C., is in the market for a good second-hand 25 to 30-horse-power locomotive-type boiler.

Boiler.—England Bros., Springfield, Tenn., will receive bids until August 25 on a 50-horse-power boiler complete.

Boilers.—See "Heating Apparatus."

Boilers.—See "Water-works."

Bottling Equipment.—Lith-Aris Company, Atlanta, Ga., will be in the market this fall for bottle washer.

Building Equipment and Supplies.—G. B. Keeler & Son, Petersburg, Va., want wire guards, steel ceiling, galvanized cornice, etc.

Canal Construction.—Sewerage and Water Board, George G. Earl, general superintendent, 602 Carondelet street, New Orleans, La., will open bids August 22 for completing the Taylor avenue canal, including flood gate. Plans and specifications can be seen at the office of the Sewerage and Water Board, drainage department, Room 20, City Hall. Usual rights reserved.

Cannery Equipment.—Newbern Mercantile & Manufacturing Co., Newbern, Va., wants

information and catalogues regarding machinery and equipment for canning factory.

Canning Machinery.—J. H. Tatum & Co., Miami, Fla., want machinery to can fish, oysters, clams and fruits.

Conduit Material.—Board of Awards, care of Harry F. Hooper, City Register, Baltimore, Md., will open bids August 10 for 1,000,000 duct feet, more or less, of conduit material, and on 200,000 duct feet, more or less, of special duct pipe for use of the Electrical Commission of Baltimore city, in accordance with the specifications drawn by Chas. E. Phelps, Jr., chief engineer, Baltimore, Md., and which may be had upon application. Certified check for \$500 must accompany all bids on conduit material, and certified check for \$300 on all bids on special duct pipe. Board reserves usual rights. For further information address Chief Engineer.

Corn Mill.—Champion Iron Works Co., Crowley, La., wants to handle mill for grinding rice or corn, and would like to correspond with manufacturers.

Cotton Machinery.—"Textile," care of Manufacturers' Record, wants one 40-inch finisher lapper with eveners, six 40-inch revolving flatcards, clothing, in good order; 12 or 14 deliveries of drawing, one 12x6-inch slubber, one 10x5-inch intermediate, five or six 8x4 or 7x3-inch roving frames, two or three twistlers, 4½-inch rings; one Denn warper, not less than 2200 ends.

Cranes.—See "Electrical Machinery, etc."

Electric Plant.—See "Power Plant."

Electrical Equipment.—Capital Grain Co., North Front street, Nashville, Tenn., wants prices on electrical equipment.

Electrical Equipment.—Clayton-Argus Publishing Co., Clayton, Mo., wants prices on electrical equipment.

Electrical Machinery, etc.—A. M. Cristofani, via Garibaldi 18 (Palazzo Rosso), Genova, Italy, wants prices on one plate-bending roll machine with three rolls—6300 meters long—for bending cold plates up to the thickness of 30 m. m.—length up to 6 m. and diameter up to 1 m.—with three electric motors, 10 horse-power, 25 horse-power and 10 horse-power; one plate-bending roll machine with four rolls—6300 meters long—for bending cold plate up to the thickness of 13 m. m.—length up to 6 meters and diameter up to 2 m., with two electric motors, 20 horse-power and five horse-power; one plate-bending roll machine with three rolls—3300 meters long—for bending cold plates up to the thickness of 20 m. m.—length up to 3500 meters and diameter up to one meter, with one electric motor of 20 horse-power; one angle iron bending power machine with four rolls, with one electric motor of 15 horse-power; one planing machine flanging iron plates up to 30 m. m.—length 6500 meters—flanging also plates diagonally and with glide mechanism, with electric motor of 10 horse-power; one punching-cutting machine to punch up to the diameter of 26 m. m.—thickness of 25 m. m.—and for cutting plates 25 m. m. thickness and angle iron of 14x14x14; opening of cutting machine obliquely side about 550-600 m. m., for punching machine 600 m. m., with two revolving cranes, revolve 2500 m. m. power kilos 1500, with electric motor of six horse-power; one lathe—distance between centers 30 meters—height of centers 1200 m. m., two slide rests, with one electric motor of seven and one-half horse-power; one lathe—distance between centers seven meters—height of centers 80 m. m., two slide rests, with one electric motor, and overhead traveling cranes as follows: One crane, 5 tons capacity, distance between wheels 18 meters, working in cabin, electric movement, three motors; one crane, 3 tons capacity, distance between wheels 7 meters, working beneath, electric movement, three motors; two cranes, 3 tons capacity, distance between wheels 8 meters, working beneath, electric movement, three motors; one crane, 5 tons capacity, distance between wheels 8 meters, working beneath, electric movement, three motors; three cranes, 4 tons capacity, distance between wheels 14 meters, working beneath, movement by hand-power (with chain and pulley blocks); two cranes, 4 tons capacity, distance between wheels 14 meters, working in cabin, electric movement, three motors; one crane, 5 tons capacity, distance between wheels 14 meters, working beneath, electric movement, three motors; one crane, 10 tons capacity, distance between wheels 20 meters, working in cabin, electric movement, three motors. Bidders to give weight and price for every object, weights and prices of electric motors to be given separately from machines moved by same; because of transport and custom duties some parts had best be left to Italian cast-iron foundries, and bidders are asked to designate these parts. Prices are to be free of all expense delivered on wagon at Genova. It is of primary importance to know time of delivery.

Electric-light Plant.—See "Heating Apparatus."

Electric-light Plant.—See "Water-works."

Electric-light Plant.—N. M. Chambliss, Sr., P. O. Box 402, Geary, O. T., will be in the market for machinery for electric-light plant.

Elevator.—Governing Committee of the New Orleans Chess, Checkers and Whist Club, New Orleans, La., will open bids August 31 for the purchase and installation of an electric passenger elevator winding machine, the removal of the machine now in use and the price to be allowed for same. Plans and specifications will be furnished by the club. Certified check for \$150 must be deposited with D. J. Theard, secretary, under separate cover. Usual rights reserved.

Engine.—F. E. Church, Fort Benning, Va., wants a one or two-horse-power gasoline engine, second-hand.

Engine.—See "Heating Apparatus."

Engine.—See "Power Plant."

Engine.—See "Water-works."

Engine.—See "Hoisting Engine."

Engine.—Lloyd Gln & Mill Co., Lloyd, Texas, wants prices on engine.

Engine and Boiler.—See "Laundry Equipment."

Engine and Boiler.—N. M. Chambliss, Sr., P. O. Box 402, Geary, O. T., will be in the market for a 200-horse-power Corliss engine and a 250-horse-power water-tube boiler.

Engine and Boiler.—Lith-Aris Company, Atlanta, Ga., will be in the market this fall for small engine and boiler.

Engines and Boilers.—See "Machine-shop Equipment."

Evaporating Machinery.—D. E. Peizer, 330 West 7th street, Traverse City, Mich., wants information and prices on machinery for evaporating bananas and making banana flour.

Flouring Machinery.—See "Evaporating Machinery."

Flour-mill Equipment.—Newbern Mercantile & Manufacturing Co., Newbern, Va., wants information and catalogues regarding machinery for flour mill.

Foundry Equipment.—See "Machine-shop Equipment."

Games.—Paul A. Bowden, Thomson, Ga., wants addresses of manufacturers of box ball outfits.

Heating Apparatus.—George R. LeBaron, El Paso, Texas, wants prices on hot-water heating apparatus.

Heating Apparatus.—Frank W. Keating, M. D., superintendent Maryland Asylum and Training School for Feeble-Minded, Owings Mills, Md., will open bids August 10 for installation of a low-pressure steam-heating apparatus in administration building; hot-water heating apparatus in Gundry cottage, including modification of hot-water heating apparatus in Pembroke and Thom cottages; two horizontal tubular boilers, complete with brick settings; one smokestack, one 40-horse-power high-speed steam engine with a 25-kilowatt electric generator direct connected thereto, and one 25-horse-power vertical high-speed steam engine for belt driver to a 1½-kilowatt electric generator; complete system of steam distributing, return and water pipes, etc.; main switchboard, system of electric supply wires from power-house to various buildings. Plans and specifications on file at office of superintendent, also at office of Adams & Schwab, engineers, 7 Clay street, Baltimore, Md. Board of Visitors reserves usual rights.

Hoisting Engine.—C. G. Patton, Box 720, Houston, Texas, is in the market for a pile-driver's engine to handle a 2500-pound hammer.

Hoisting Engine.—Alba Lime Co., Fayetteville, Ark., wants a gasoline hoisting engine.

Hoisting Equipment.—Smith & Brinkley, Jacksonville, Fla., want addresses of manufacturers of gasoline motive hoists.

Ice Machine.—N. M. Chambliss, Sr., P. O. Box 402, Geary, O. T., will be in the market for one 20 to 30-ton ice machine.

Ironworkers.—Wyatt Furnace Manufacturing Co., Olmstead, Ky., wants to buy sheet steel, angle iron, light metal 28 to 32-inch wheels; also wants to correspond with manufacturers of sheet iron relative to making a patented device.

Laundry Equipment.—Rich & Steele, Princeton, Ky., want complete equipment for laundry, including engine and boiler.

Lime.—J. E. Kaiser, president St. Paul Brick Co., 776 Lincoln avenue, St. Paul, Minn., wants prices on hydrated lime. Copy of bid to be sent to the Semiteel Co., Cleveland, Ohio.

Lumber.—Bicknell Hardware Co., Janesville, Wis., wants lowest price to jobbers on

cypress, all grades, Southern pine and box bottoms, oak and hickory lumber.

Lumber Mill.—See "Woodworking Machinery."

Machine-shop Equipment.—Gainesville Foundry and Machine Works, Gainesville, Fla., wants prices and circulars on machinery and equipment for foundry and machine shop, boilers, engines, etc.

Machine Tools.—See "Machine-shop Equipment."

Machine Tools.—Cardwell Machine Co., 1900 East Cary street, Richmond, Va., is in the market for a 600 to 800-pound single-frame steam hammer, second-hand.

Machine Tools.—See "Electrical Machinery, etc."

Marble.—Columbia Stone Co., 1001 Main street, Columbia, S. C., wants prices on Bedford oolitic limestone and marble for monuments.

Metal-working Machinery.—See "Electrical Machinery, etc."

Metal-working Machinery.—A. Rusconi & Co., 97 Cso. Garibaldi, Milano, Italy, wants prices on machinery and appliances for making steel rings for spinning and twisting.

Mill Supplies.—Capital Grain Co., North Front street, Nashville, Tenn., wants prices on mill supplies.

Novelty Works.—W. T. Gravely, Box 352, Danville, Va., wants addresses of manufacturers of tin novelties.

Paper-box factory Supplies.—Alabama Paper Box Co., Anniston, Ala., wants prices on glazed paper, strawboard, dextrin and glue.

Pipe.—Clark & Co., Waynesville, N. C., want 16,000 feet of second-hand one-inch wrought-iron pipe and headers in good condition.

Power Machinery.—See "Electrical Machinery, etc."

Power Plant.—Hickerson Bros., Rockville, Md., contemplate installing electricity, gasoline or kerosene engines for furnishing power to operate flour and grist mill, and estimates are invited. About 20 horse-power will be installed at first, which will later be doubled.

Printing Plant.—J. Coles Clay, Lynchburg, Va., wants to correspond relative to purchasing complete outfit for newspaper plant.

Pump.—See "Water-works."

Pump.—Lloyd Gln & Mill Co., Lloyd, Texas, wants prices on pump.

Pumps.—See "Water-works Equipment."

Pumping Engine.—Board of Public Works, Kansas City, Mo., will open bids August 12 for construction of centrifugal pumping engine, continuous service, upon foundations provided by city in present building, to pump 25,000,000 gallons of water in 24 hours from settling basin into flow line against a head of from 33 to 47 feet above settling basin, with a steam pressure of 150 pounds per square inch. Plans and specifications on file in water department. Proposals must be made on printed forms and be accompanied by plans and specifications fully describing pumping engine, necessary foundations, etc.; also with certified check for 10 per cent. of amount of bid, made payable to City Comptroller. Usual rights reserved.

Railway Equipment.—Jos. E. Bowen, Atlantic Office Building, Norfolk, Va., wants one standard-gauge passenger car and one standard gauge combination passenger and baggage car.

Railway Equipment.—John G. Duncan Co., 216 Jackson avenue, Knoxville, Tenn., wants dealers' prices for quick and prompt shipment on a half-mile of not less than 20-pound rail, fishplates, spikes, etc.

Railway equipment.—Henry M. Warren Company, 1302 Walnut street, Philadelphia, Pa., is in the market for 1700 tons and 1100 tons 70-pound first-class relaying rails for delivery near Philadelphia.

Railway Equipment.—Gayosa Coal Co., Jasper, Ala., will be in the market for 12, 16 and 20-pound relaying T rails.

Roofing.—J. P. Dellinger & Co., Shelby, N. C., want prices on roofing.

Roofing.—See "Slate Manufacturers."

Rope.—Barataria Canning Co., Biloxi, Miss., wants prices and samples on one-quarter-inch and five-sixteenths-inch cotton rope, hard and soft laid and half patent.

Saw-mill.—Newbern Mercantile & Manufacturing Co., Newbern, Va., wants information and catalogues regarding saw-mill equipment.

Saw-mill Equipment.—See "Woodworking Machinery."

Scales.—Keystone Lime Co., Charleston, S. C., wants a pair of railroad track scales in first-class condition.

Seawall Construction.—Copies of the plans

and specifications for the extension of the Galveston seawall by the government can be obtained on application to the Office of the United States Engineer, Galveston, Texas. Bids are to be opened August 24; length of wall, about 5000 feet. Approximate quantities of materials to be used are: Piles, 167,000 linear feet; sheet piling, 1,105,000 feet B. M.; reinforcing rods, 104,000 pounds; anchor rods, 96,000 pounds; vitrified pipe, 100 linear feet; concrete, 28,500 cubic yards; rip-rap, 15,000 tons of 2000 pounds; in excavating for trench about 16,000 cubic yards will have to be removed; handling sand and soil of batteries, about 12,000 cubic yards; handling rip-rap of battery protection, 4000 cubic yards.

Slate Manufacturers.—J. Edwin Archart, Staunton, Va., wants addresses of manufacturers of roofing slate.

Soap Machinery.—Miller & Kennard, First National Bank Building, Tampa, Fla., wants addresses of manufacturers of soap machinery.

Steam Hammer.—See "Machine Tools."

Street Paving.—Improvement Committee, Washington, N. C., will open bids August 16 for about 9000 yards of street pavement with Belgian block, vitrified brick or bituminous pavement. For specifications, form of proposals, etc., address E. T. Stewart, chairman, Washington, N. C.

Sugar-refinery Equipment.—Mexican Plantation Co. of Wisconsin, La Crosse, Wis., wants bids on sugar-house machinery complete, except the cane mill, which has a capacity of 350 tons per day.

Tin Manufacturers.—See "Novelty Works."

Water-works.—City of Springfield, Tenn., H. T. Stratton, mayor, will open bids August 10 for furnishing material and constructing a water and light plant composed of the following items: One 150-horse-power simple four-valve belt engine, one 100-kilowatt three-phase 200-volt alternator with switchboard, etc.; two 66-inch by 16-foot horizontal tubular boilers, one heater and feed pump, one 50-light C. C. transformer and 30 series are lamps, 75,000-gallon tank and tower 120 feet high, brick power-house, one 750,000 vertical triplex motor-driven pump, one 50-horse-power induction motor, one pump-house, pole, line and wiring system, 305 tons cast-iron pipe four to eight inches, 32 double-nozzle hydrants and 16 valves, transformers, etc. Bids to be received on pipe and machinery direct from manufacturers, as well as from general contractors; construction work to be let as a whole. Certified check for 5 per cent. of bid must accompany each proposal. Alternate proposals will be received on a 100-kilowatt steam turbine installation, provided delivery will be guaranteed within four months. Specifications may be obtained from city clerk; plans on file with city clerk and Granbury Jackson, engineer, Nashville, Tenn.

Water-works Equipment.—L. N. Buell, mayor, Brighton, Ala., will be in the market for equipment for water-works, including pumps, boiler, etc.

Wharf Improvements.—Board of Commissioners of Port of New Orleans, La., Hugh McCloskey, president, 601-602 Hibernia Bank & Trust Building, New Orleans, will open bids August 16 for the construction of the Toulouse-street wharf, material to be furnished by the board; deposit \$1000; payments 80 per cent. monthly; bond in full amount of contract. Plans, specifications, proposal forms, etc., on file at office of J. F. Coleman, engineer, 929 Hibernia Bank & Trust Building, New Orleans, La., by whom full sets will be furnished on deposit of \$15; usual rights reserved.

Wirework.—See "Building Equipment and Supplies."

Wood-alcohol Machinery.—The Manetto Company, Miami, Fla., wants addresses of manufacturers of machinery for making wood alcohol.

Woodworking Machinery.—W. T. Anderson, Mathis, Ga., wants machinery for manufacturing pine and poplar siding, oak and chestnut for interior finish.

Woodworking Machinery.—New Albany Lumber & Real Estate Co., New Albany, Miss., wants prices on machinery and equipment for manufacturing building material.

Woolen-mill Machinery.—C. W. Sumter, Christiansburg, Va., wants information regarding the woolen industry and prices on the machinery required for mill.

Galvanized Hoop and Bar Iron.

A leaflet has been issued showing the galvanized hoop and bar iron carried in stock by the United Galvanizing Co., 525 North Front street, Philadelphia, Pa. Buyers of this kind of material will find some data to interest them in the leaflet.

## MEXICO.

Banana Flour and Coffee Mills.—A. F. Spawn, president of the Banana Coffee & Food Co., Philadelphia, Pa., is registered at the Grand Hotel, City of Mexico, where he is investigating for location for plant to manufacture coffee and flour from bananas. Machinery has arrived for such a plant to be established at Vera Cruz, V. C., by Mr. Spawn's company.

Banana Plantation and Evaporating Plant. D. E. Pelzer, 330 West 7th street, Traverse City, Mich., expects to build an evaporating plant for bananas and to manufacture banana flour on his plantation in Mexico. He is on the market for the required machinery and invites makers of such machinery to send full particulars. Mr. Pelzer also wants information regarding the market for bananas in the shape referred to.

Brick Works.—The Teoloyucan Brick Co., Teoloyucan, Mexico, contemplates installing an equipment of machinery for manufacturing bricks from sand and lime.

Business Building.—Francis Belden of Monterey, New Leon, will erect a brick business building, two stories high, red-brick front, plate-glass windows, etc.; rooms to be arranged for mercantile and office purposes. Alfred Giles has prepared the plans and specifications.

Coke Ovens.—The Monterey Steel Co., Monterey, New Leon, contemplates building coke ovens to supply its large steel plant.

Copper Furnaces.—Dispatches state that the American Smelting & Refining Co. is completing arrangements for the erection of its proposed four copper furnaces at Velardena, Durango.

Electrical Mining Plant.—The Carrizal Gold Mining Co., offices at 33 Gold street, New York, has awarded contract to Rudolph J. Decker of Salt Lake City, Utah, for the electrical equipment to be installed at the company's mines in Mexico.

Electric-light Plant.—Porfirio Torres Camarenas of Guadalajara, Jalisco, has received the necessary permission to establish his proposed electric-lighting plant at Arandas, Jalisco. Plant will have steam power and generate current for about 1000 lamps.

Gold Mill.—The Ajuchitlan Mining Co., John Brennan, manager, Ajuchitlan, Queretaro, has begun the construction of a plant for treating the ores from its gold mines; mill to have capacity of 50 tons daily.

Gold-mining Company.—The La Brisca Gold Co. has been organized, with capital stock of \$1,600,000, to develop gold mines in the State of Sonora. Machinery will be installed for mining. The directors are P. J. Tehanay, J. A. Campbell, T. Evans, J. M. Walsh and others, all of La Cananea, Sonora.

Hydraulic Power Plant.—Enrique Silva of Penjamo, Guanajuato, has received concession to utilize 4000 liters of water per second from the river Angulo for the purpose of developing water-power.

Iron Works.—Ralph N. Beach and George Townsend, operating the Tula Iron Works at Tula, Jalisco, contemplate beginning work soon on their proposed improvements and enlargements, increasing capacity to 18,000 tons annually.

Ixtle Manufacturing.—Antonio Teresa is reported as to establish a works for manufacturing ixtle from the lechuguilla plant, at Esplanazo, near Monterey, New Leon.

## INDUSTRIAL NEWS OF INTEREST

### Wringer Factory for Sale.

The Ohio Wringer Co. of Springfield, Ohio, offers for sale its entire manufacturing plant, including buildings, machinery, patterns, etc. Send for further details.

### Woodworking Plant for Sale.

Any manufacturer seeking a woodworking plant is informed that an established plant in Virginia will be sold to settle an estate. The plant is located on two railroads, and has orders ahead for stock. For further facts apply to H. H. Smith, Hoover House, Staunton, Va.

### Lumber Plant in North Carolina.

One of the many modern lumber plants in North Carolina is on the market. The plant has a daily capacity of 40,000 feet, and includes 80,000,000 feet fine pine timber at 60 to 80 cents per thousand. It is located on railroad. Full particulars can be obtained by addressing Lumber & Timber Co., care of the Manufacturers' Record.

### Cold-Storage Plant Needed.

One of the best fruit, vegetable, fishery and stock-raising sections of the South needs an

Market-houses.—The City of Chihuahua, Chl., is considering plans to remodel and practically rebuild its old market-house, making it a modern structure, at a cost of \$14,000. Address The Mayor.

Matte Plant.—The American Smelting & Refining Co. of Velardena, Durango, is preparing to begin soon the construction of a large matting plant, daily capacity to be probably 1000 tons of copper.

Mining.—The Compania Minerva La Victoria y Tapada has been organized, with capital stock of \$400,000 (gold), to develop mines in the State of Oaxaca. It is proposed to install an equipment of modern machinery at the mines, which have been previously worked. G. W. Johnson, Coliseo Viejo, No. 15, City of Mexico, represents the company.

Smelting Plant.—It is reported that T. J. Ryder of the City of Mexico and associates are completing their plans to build a smelting plant, organizing a \$200,000 company and operate it. Among others said to be interested are C. A. Hamilton, W. J. Cartan, J. C. Catlin, each of New York, and Max Friend of London, England.

Sugar Mill.—The Tabasco Plantation Co., J. C. Elfield of Minneapolis, Minn., secretary, is making preparations to begin the construction of its proposed sugar factory, to have a daily capacity of 2500 tons and be located on the company's plantation on the Coatzacoalcas river, Isthmus of Tehuantepec.

Timber-lands Development.—John J. Westcott of Beaumont, Texas, is closing negotiations with New York and Omaha (Neb.) capitalists, among the latter being F. M. Currie, for the sale of 750,000 acres of timber land near Durango and Torreon, Mexico. The purchasers intend to develop the property, establishing logging camps and erecting saw-mills, etc.

Tobacco Works.—The Black Horse Tobacco Co. has been organized recently and established a plant for manufacturing tobacco. Guido Moebius is general manager.

Water-works and Drainage System.—The Mexican Construction & Engineering Co. of the City of Mexico is preparing to begin work on its contract, recently received, for constructing a system of water-works and of drainage at Jalapa and Cordoba, Vera Cruz.

Water-works and Sewerage.—E. K. Smoot contemplates constructing water-works and sewerage system in the city of Mazatlan, Sinaloa. He is in charge of the port works at Manzanillo and can probably be addressed there. A San Francisco engineer is said to be making the necessary surveys for the work.

Wire-nail Works.—Henry Deutz has recently established a wire-nail plant at San Luis Potosi, S. L. P.

### Railways.

Steam Railroad.—Reported that the independent mine owners in the Concepcion del Oro region will build a 10-mile railroad to connect with the Coahuila & Zacatecas Railroad. The Mazapil Copper Co. at Saltillo, Mexico, may be addressed.

Steam Railroad.—It is reported that construction has commenced on the San Carlos Copper Co.'s road from San Jose, Tamps, to Linares, Nuevo Leon, a distance of 40 kilometers. The road will be standard gauge, and connect with the National Railroad at Linares. It is also reported that the line may be extended to Sota la Marina, near the coast.

Ice and cold-storage plant. A daily capacity of 50 tons would supply the locality and form a most profitable investment. Full particulars regarding the opportunity presented in this instance can be obtained by addressing G. W. Van Buskirk & Co., Tampa, Fla.

### Prohibiting Use of White Lead.

"Decrees of the French Government Prohibiting the Use of White Lead and Requiring the Substitution of Zinc White Therefor" is the title of a pamphlet now being sent to architects, builders, building owners, painters and others who are likely to be interested in the subject. Those who have not seen the leaflet are requested to write for one, addressing the New Jersey Zinc Co., 11 Broadway, New York.

### An Opportunity for Capital.

It is proposed to introduce a patented turpentine still for gum or redistilling the wood product or any other product that requires distilling. The inventor intends to establish plants and is desirous of interesting capital in his enterprise. The still is operated by steam and is said to make more spirits and higher grade rosin from gum than the old

process. It makes pure spirits free from acid. Investors wanting to investigate this proposition are advised to address "Turpentine," care of the Manufacturers' Record.

#### F. A. Clegg & Co. Get Heating Contract.

Contracts for installing the heating plant for the seven-story Miazza-Woods Office Building at Meridian, Miss., and for the Reiman Hotel at Greenwood, Miss., have been awarded to Messrs. F. A. Clegg & Co., Inc., 236 3d street, Louisville, Ky., contractors for steam heating, water and fan heating and ventilating power plants, engines, boilers, pumps, etc.

#### Chester Steel Castings Co.

An announcement has been made by the Chester Steel Castings Co. of 407 Liberty street, Philadelphia, Pa., regarding the recent fire in its works at Chester. The fire did but little damage and will not interfere with the company's business or curtail its product in any way. It was confined to one furnace and the building immediately over it. The plant was in full operation two days after the fire. No damage was done to power or equipment. The company manufactures steel castings of every description, open-hearth and McAffie steel.

#### Manufacturing Realty for Sale.

Manufacturers or investors in manufacturing realty will be interested to be informed that the Namquit Mill of the Richmond Manufacturing Co. at Bristol, R. I., is for sale. The property includes stone mill 45x170 feet, steam-power plant, electric-lighting equipment, picker-house, machine shops, etc., fronting on N. Y., N. H. & Hartford Railway. Full particulars regarding this proposition can be obtained by addressing Messrs. J. E. Conant & Co., Lowell, Mass. Conant & Co. have illustrated catalogue ready to send to inquirers. They will auction the property on August 9.

#### A Bargain in Brick Machinery.

Owing to the advance in the value of the land on which an Ohio brick plant is located, the owners are offering the equipment of machinery for sale. The plant comprises a modern outfit for making about 40,000 bricks daily by the stiff-mud process, and it can be readily removed to another location by taking measurements of the plan, which cannot be improved, so the owners state. It is stated that the machinery is practically as good as new. Anyone who is interested in the facts presented and wants further details regarding this opportunity can address the Bellaire Brick Co. of Bellaire, Ohio.

#### O'Rourke Orders Ingersoll-Sergeant Machinery.

The O'Rourke Engineering & Construction Co., which has contract for building the Pennsylvania Railroad tunnel under the Hudson river, has placed order with the Ingersoll-Sergeant Drill Co. for two central compressed-air power plants to be located at New York city and Weehawken, N. J. This order includes six 36-inch stroke Corliss air compressors, each of 3699 cubic feet capacity. With the O'Rourke plant installed the total number of Ingersoll-Sergeant compressors supplying air for subaqueous tunnels in New York will be as follows: Six class "A" straight-line compressors, 10 Corliss duplex compressors, three class "H" duplex compressors, two class "G" duplex compressors.

#### Lighting With Nernst Lamps.

The Nernst Lamp Co. has recently obtained, through its Philadelphia office, in charge of A. E. Baker, the contract for lighting Rocky Glen Park of Scranton, Pa., with 100 six-glowers lamps. The steady daylight quality of the light, combined with its high efficiency, should give the Nernst lamp quite an advantage in this class of lighting. It may also be mentioned that the Pennsylvania Railroad is finding the lamp a success in depot lighting, and has recently made a substantial addition to its Philadelphia installations. The Philadelphia Nernst office has also recently secured the adoption of Nernst lamps by the Paxtang Electric Co., in Harrisburg, Pa., and this company now has over 2000 glower units in service on its circuits.

#### A Well-Known Lubricant.

That the best is the cheapest and most satisfactory in the long run is beyond dispute, as far as lubricants are concerned. This is proved in the wide demand for Albany Grease, of which Messrs. Adam Cook's Sons, 313 West street, New York, are the only makers. R. O. Cumbach, superintendent of the Pedrick & Ayer Co., Plainfield, N. J., writes that it has been a user of Albany Grease for some time, "and think it is one of the best brands of grease on the market."

while the Woodman Cook Co. of Portland, Maine, states in a recent letter to the manufacturers that it is using Albany Grease with "entire satisfaction." This well-known lubricant is a favorite one with engineers generally, and can be used with equally good results on either slow or fast running machinery.

#### Huntington's Manufacturing Advantages.

During the past several years there has been great advance shown in utilizing the manufacturing advantages of West Virginia, especially of the city of Huntington. This city is constantly adding important enterprises to the representative factories already located there. Huntington has advantages in the way of low-transportation facilities, cheap fuels, commodious factory sites, etc., that steadily induce manufacturers to locate there in preference to other places. Last week a seven-kiln pottery, to employ 300 men, was secured. Free sites can be obtained by factories of genuine merit. Information regarding this progressing industrial center and data regarding the inducements offered manufacturers can be obtained by addressing the Huntington Land Company.

#### Natural Gas Power Plant for Sale.

In many localities the supply of natural gas has diminished to such an extent as to make it necessary for manufacturers to provide other and more expensive fuel. But since the introduction of natural gas at Louisville some years ago there has been no diminution of that supply and every precautionary measure has been taken by the courts and users to ensure an economical taking of the fuel. It will therefore interest manufacturers seeking advantageous conditions to know that a 110-horse-power gas-power plant, now in full operation at Louisville, is offered for sale. The premises occupy a space 210x200 feet on the Louisville & Nashville Railroad, and are well adapted for the manufacture of furniture, office fixtures, implements, vehicles and other woodwork. The property could be readily converted into wire works, iron works, metal-working plant, harness factory, tool works, etc. The 10 lines of railway entering Louisville, Ky., and the Ohio river at her doors provide ample transportation facilities for products of all kinds. The power plant referred to has its own water supply. The Gernert Bros. Lumber Co. of Louisville can be addressed for information regarding the power plant for sale.

#### SOUTHERN COTTON-MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending August 2.

|                                      | Bid. | Asked. |
|--------------------------------------|------|--------|
| Abbeville Cotton Mills (S. C.)       | 60   | 71     |
| Aiken Mfg. Co. (S. C.)               | 85   | 90     |
| Anderson Cotton Mills (S. C.)        | 105  | 118    |
| Arkwright Mills (S. C.)              | 105  | 118    |
| Augusta Factory (Ga.)                | 72   | 75     |
| Belton Mills (S. C.)                 | 101  | 105    |
| Brandon Mills (S. C.)                | 99   | 102    |
| Buffalo Cotton Mills (S. C.)         | 99   | 102    |
| Buffalo Cotton Mills (S. C.) Pfd.    | 99   | 102    |
| Cabarrus Cotton Mills (N. C.)        | 122  | 129    |
| Clifton Mfg. Co. (S. C.)             | 89   | 91     |
| Clinton Cotton Mills (S. C.)         | 135  | 140    |
| Courtenay Mfg. Co. (S. C.)           | 109  | 111    |
| Columbus Mfg. Co. (Ga.)              | 79   | 85     |
| Dallas Mfg. Co. (Ala.)               | 89   | 95     |
| Darlington Mfg. Co. (S. C.)          | 90   | 95     |
| Eastley Cotton Mills (S. C.)         | 104  | 109    |
| Enoree Mfg. Co. (S. C.)              | 77   | 81     |
| Enterprise Mfg. Co. (Ga.)            | 76   | 80     |
| Exposition Cotton Mills (Ga.)        | 160  | 200    |
| Gaffney Mfg. Co. (S. C.)             | 55   | 70     |
| Gainesville Cotton Mills (Ga.)       | 75   | 75     |
| Graniteville Mfg. Co. (S. C.)        | 135  | 135    |
| Greenwood Cot. Mills (S. C.) Pfd.    | 102  | 102    |
| Grendel Mills (S. C.)                | 102  | 102    |
| Henrietta Mills (S. C.)              | 200  | 200    |
| King Mfg. Co., John P. (Ga.)         | 86   | 90     |
| Lancaster Cotton Mills (S. C.)       | 100  | 110    |
| Lancaster Cot. Mills (S. C.) Pfd.    | 101  | 101    |
| Langley Cotton Mills (S. C.)         | 95   | 100    |
| Lockhart Mills (S. C.)               | 85   | 102    |
| Louise Mills (N. C.)                 | 100  | 100    |
| Marbleboro Cotton Mills (S. C.)      | 102  | 102    |
| Mills Mfg. Co. (S. C.)               | 95   | 95     |
| Mills Mfg. Co. (S. C.) Pfd.          | 100  | 100    |
| Monarch Cotton Mills (S. C.)         | 83   | 83     |
| Monaghan Mills (S. C.)               | 98   | 98     |
| Newberry Cotton Mills (S. C.)        | 120  | 120    |
| Norris Cotton Mills (S. C.)          | 105  | 105    |
| Odell Mfg. Co. (N. C.)               | 100  | 100    |
| Orangeburg Mfg. Co. (S. C.) Pfd.     | 102  | 102    |
| Orr Cotton Mills (S. C.)             | 102  | 102    |
| Pacolet Mfg. Co. (S. C.)             | 85   | 90     |
| Pacolet Mfg. Co. (S. C.) Pfd.        | 99   | 99     |
| Pelzer Mfg. Co. (S. C.)              | 180  | 180    |
| Piedmont Mfg. Co. (S. C.)            | 178  | 180    |
| Poe F. W. Mfg. Co. (S. C.)           | 129  | 131    |
| Raleigh Cotton Mills (N. C.)         | 105  | 105    |
| Roanoke Mills (N. C.)                | 125  | 125    |
| Saxon Mills (S. C.)                  | 96   | 100    |
| Sibley Mfg. Co. (Ga.)                | 65   | 65     |
| Southern Cotton Mills (N. C.)        | 90   | 90     |
| Spartan Mills (S. C.)                | 132  | 140    |
| Tucuman Mills (S. C.)                | 145  | 145    |
| Union Cotton Mills (S. C.)           | 99   | 99     |
| Union Cotton Mills (S. C.) Pfd.      | 99   | 99     |
| Victor Mfg. Co. (S. C.)              | 101  | 103    |
| Warren Mfg. Co. (S. C.)              | 108  | 108    |
| Washington Mills (Va.)               | 124  | 20     |
| Washington Mills (Va.) Pfd.          | 100  | 100    |
| Whitney Mfg. Co. (S. C.)             | 110  | 110    |
| Wilmington Cotton Mills (N. C.) Pfd. | 100  | 100    |
| Woodruff Cotton Mills (S. C.)        | 96   | 96     |

## FINANCIAL NEWS

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

### Financial Faith in Baltimore.

One of the most significant and gratifying features of the work of rehabilitating the burned district of Baltimore is the faith in the city's future development shown by financial institutions in plans for the restoration or rebuilding of their homes. Where new sites have been selected the buildings to be erected will be larger and better equipped than the old ones. Where rebuilding is to be done on former sites the general tendency is to occupy sites with structures devoted exclusively to the business of the institutions, thus separating banking proper from the details of rental and care of auxiliary offices. The plan for one lofty building, whose walls and frame were largely unscathed, is to remove the upper stories, leaving sufficient space above the banking room proper to meet ultimately all possible demands of a growing business. The owners of another building which practically escaped the fire, and which only a short time before had been greatly enlarged, have bought an adjoining lot, not merely as an additional safeguard against future fire, but to provide room for further addition as it may be required. The working out of these plans will give the financial district of Baltimore a unique character, and will make the district an example for all time of confidence in the face of great disaster.

### Southern Railway Finances.

President Spencer of the Southern Railway Co. has issued a preliminary statement of the operations of the company for the fiscal year ended June 30. This report shows gross earnings of \$45,109,777, an increase of \$2,755,718 as compared with the preceding year. The operating expenses and taxes were \$33,115,467, an increase over the preceding year of \$2,126,327. The net earnings were \$11,994,310, a gain of \$629,390. The development of the business of this great system is admirably illustrated in the statistical table comparing the business of the road in 1895 with that of 1904:

|   | 1895.         | 1904.         |
|---|---------------|---------------|
| Ave. mileage of road operated                               | 4,139.44      | 7,164.39      |
| Gross earnings from operation                               | \$17,114,791  | \$45,109,777  |
| Net earnings from operation                                 | 5,061,937     | 11,994,310    |
| Net income, all sources                                     | 5,091,670     | 13,132,728    |
| Fixed charges   | 4,195,925     | 8,952,328     |
| Surplus income over fixed charges                           | 885,745       | 4,180,400     |
| Gross earnings per mile of road                             | 4.134         | 6.296         |
| Net earnings per mile of road                               | 1.220         | 1.674         |
| Tons one mile (including Co.'s material)                    | 1,249,239,941 | 3,812,864,988 |
| Avg. No. tons freight each train (including Co.'s material) | 160           | 225           |
| Avg. receipts per ton per mile                              | 0.984 cents   | 0.933 cents   |
| Avg. receipts per freight train mile                        | \$1.445       | \$1.771       |

There was an increase in mileage of 3024.95, in gross earnings from operation of \$27,994,986, in net earnings from operation of \$6,942,373, in net income from all sources of \$8,041,058, in fixed charges of \$4,750,403, in surplus income over fixed charges of \$3,284,655, in gross earnings per mile of road of \$2162, in net earnings per mile \$454, in number of tons carried one mile, including company's material, of 2,563,625,047, in average number of tons of freight per train of 65, and in average receipts per freight train mile 32.6 cents.

The increase in the magnitude of business and in the gross and net earnings per mile gives a hint of what the future holds out for this, as well as for all other well-

## TABLE OF CONTENTS.

| EDITORIAL:                                       | Page. |
|--|-------|
| The St. Louis Exposition                         | 43    |
| Fort Smith's Predicament                         | 43    |
| What Has the Mayor Against Baltimore?            | 43    |
| Is There Not Waste Here?                         | 43    |
| Damage-Suit Industry                             | 43    |
| American Federation of Labor in Politics         | 43    |
| The South's Coal Output                          | 44    |
| The Peabody Education Fund                       | 44    |
| Railroad Incorporations in July                  | 44    |
| "Indispensable Aid to Business"                  | 44    |
| Why Not Be Truthful?                             | 45    |
| Pig-Iron Production                              | 45    |
| Literary Notes                                   | 45    |
| American Mining Congress                         | 45    |
| On Account of 12-Cent Cotton                     | 45    |
| Italians in the Cotton Belt                      | 46    |
| Italians as Farmers                              | 46    |
| The Mississippi Industrial Institute and College | 47    |
| The Birmingham District                          | 47    |
| Pig-Iron Production                              | 48    |
| Mining Around Middlesboro                        | 48    |
| Southern Mill Conditions                         | 48    |
| Southern Minerals at the Exposition              | 49    |
| Individual Exhibits at St. Louis                 | 51    |
| RAILROADS:                                       |       |
| Projects in Louisiana                            | 54    |
| Coal Mines and Railroad                          | 54    |
| To Handle Freight                                | 54    |
| Dublin & McKee                                   | 54    |
| Building Extensive Yards                         | 54    |
| New N. & W. Equipment                            | 54    |
| Monroe Central                                   | 54    |
| Connecting Gulf Coast Towns                      | 54    |
| An Inviting Field                                | 54    |
| May Combine Properties                           | 54    |
| To Lay Heavier Rails                             | 54    |
| Over the Florida Keys                            | 54    |
| To Develop Mineral Interests                     | 54    |
| Railroad Notes                                   | 54    |
| TEXTILES:  |       |
| Cotton in Africa                                 | 55    |
| To Manufacture Canvas Stitched Belts             | 55    |
| Changing to Weave Mill                           | 55    |
| Information Wanted on Woolen Industry            | 55    |
| Textile Notes                                    | 55    |
| Cheap and Rich Southern Lands                    | 55    |
| FOREIGN TRADE:                                   |       |
| Trade in the Levant                              | 55    |
| Wants an Illustrated World's Fair Magazine       | 55    |
| For Ironworking Machinery                        | 55    |
| Grain at New Orleans                             | 55    |
| Gulport's Growing Importance                     | 55    |
| MECHANICAL:                                      |       |
| Triumph Steel Belt Conveyor (Illus.)             | 56    |
| The Sturtevant Fuel Economizer (Illus.)          | 56    |
| The American Elevator (Illus.)                   | 56    |
| LUMBER:  |       |
| To Make Bobbins and Shuttles                     | 57    |
| Timber of Arkansas                               | 57    |
| Milling at Marion                                | 57    |
| Wants Prices on Lumber                           | 57    |
| Lumber Notes                                     | 57    |
| CONSTRUCTION DEPARTMENT:                         |       |
| Baltimore Building Notes                         | 58    |
| New Enterprises                                  | 59    |
| Building Notes                                   | 62    |
| Railroad Construction                            | 63    |
| Machinery Wanted                                 | 64    |
| Mexico   | 65    |
| Industrial News of Interest                      | 65    |
| Southern Cotton-Mill Stocks                      | 66    |
| FINANCIAL NEWS:                                  |       |
| Financial Faith in Baltimore                     | 66    |
| Southern Railway Finances                        | 66    |
| New Corporations                                 | 36    |
| New Securities                                   | 37    |
| Financial Notes                                  | 37    |

managed railroad systems in the South. The wonderful development which has marked the business interests of the South during the last 10 years is destined to be very far surpassed by the progress of the coming 10 years. It is quite possible that the progress between now and 1910 will very considerably exceed all that has been accomplished between 1895 and 1904.

The Union County Farmers' Mutual Fire Insurance Co. of Monroe, N. C., has elected the following officers: W. H. Philfer, president; J. J. Lockhart, vice-president; L. R. Helms, F. H. Wolfe and R. B. Redwine, advisory committee, and Jas. McNeely, secretary and treasurer. The directors are F. H. Wolfe, G. R. Winchester, J. C. Laney, A. J. Brooks, W. R. Campbell, T. J. Gordon and L. R. Helms.

[For Additional Financial News See Pages 36 and 37.]

42  
43  
43  
43  
43  
43  
44  
44  
44  
44  
45  
45  
45  
45  
45  
46  
46  
46  
47  
47  
48  
48  
48  
49  
51

54  
54  
54  
54  
54  
54  
54  
54  
54  
54  
54  
54  
54  
54  
54  
54

55  
55  
55  
55  
55  
55  
55

55

55  
55  
55  
55

56  
56  
56

57  
57  
57  
57  
57

58  
59  
62  
63  
64  
65  
65  
66

66  
66  
66  
67  
67

—  
e  
d  
g  
r  
g  
e  
y  
e

l  
s  
i  
i  
t  
s  
e  
s  
t  
s  
—  
e